The role of qualification, experience and work context in perceptions of credibility and self-efficacy amongst forensic social workers as expert witnesses

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Dissertation submitted in partial fulfillment of the requirements for the degree Master of Social Work in Forensic Practice at the North-West University

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I would like to acknowledge the source of my strength and perseverance, my Lord and Saviour Jesus Christ. Your grace is sufficient in all circumstances. Special thanks is hereby extended to the following people in particular:

- My family whom I have neglected over a period of three years for the sake of my post-graduate studies. Thank you for understanding and supporting me in all my endeavours even when they take me many kilometres away from home

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- I thank the one hundred and one forensic social workers whose participation enabled this study

A final congratulation to Mrs Erika Scheepers, the winner of the R500 lucky draw incentive.

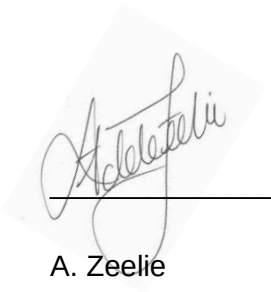
DECLARATION

Declaration of originality of research:

I, Adelé Zeelie, hereby declare that the manuscript titled: *"The role of qualification, experience and work context in perceptions of credibility and self-efficacy amongst forensic social workers as expert witnesses"* represent my own work product.

Furthermore, I unreservedly confirm that this manuscript has not been submitted in part or unabridged to another tertiary institution for the award of an academic qualification.

The work of fellow authors and researchers are acknowledged and duly attributed in the text and listed in the bibliography.



A. Zeelie

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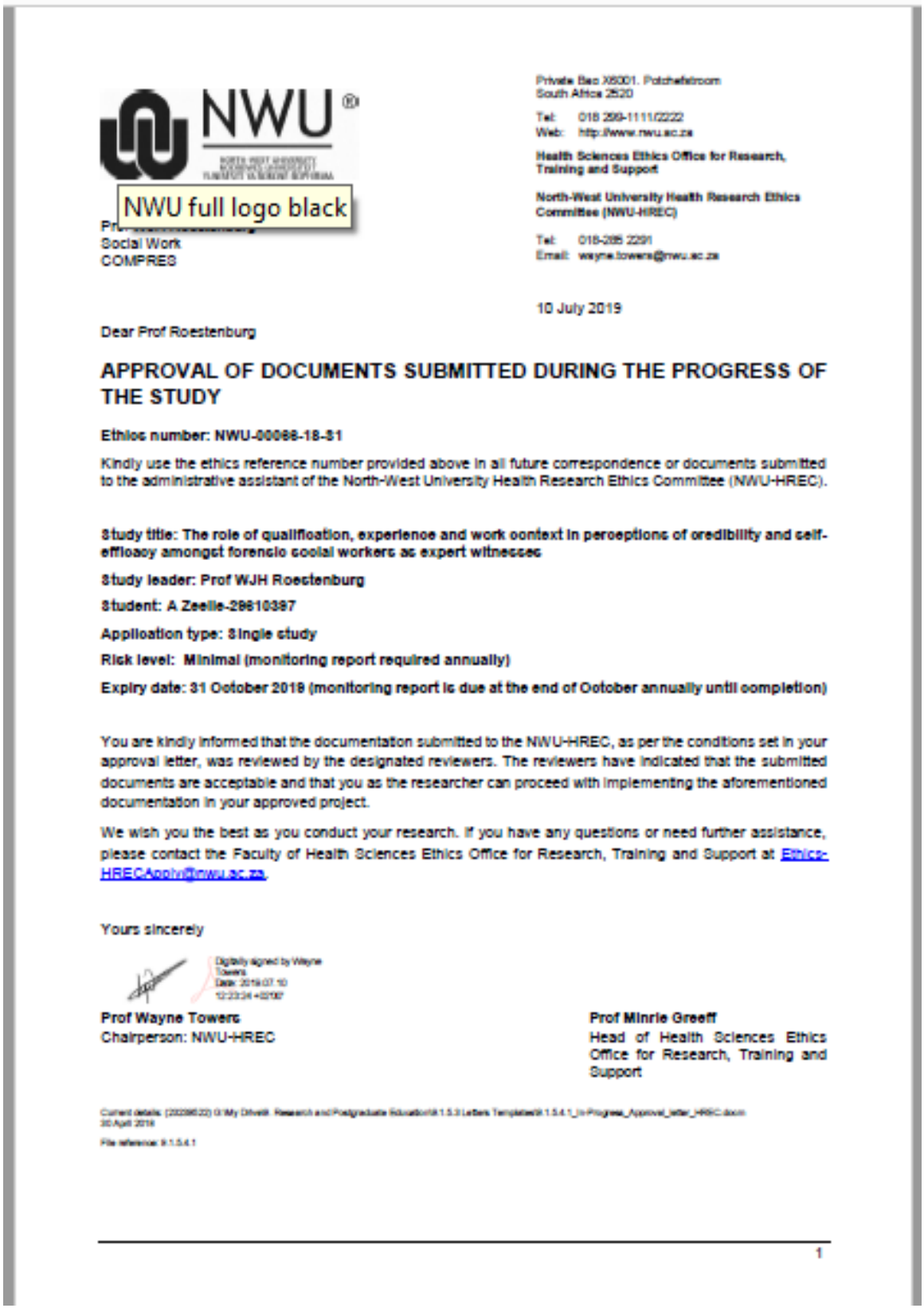

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APPROVAL OF DOCUMENTS SUBMITTED DURING THE PROGRESS OF THE STUDY

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Study title: The role of qualification, experience and work context in perceptions of credibility and self-efficacy amongst forensic social workers as expert witnesses

Study leader: Prof WJH Roestenburg

Student: A Zeelie-28810387

Application type: Single study

Risk level: Minimal (monitoring report required annually)

Expiry date: 31 October 2019 (monitoring report is due at the end of October annually until completion)

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ABSTRACT

The credibility and self-efficacy of the forensic social worker as expert witness in the criminal court is an important consideration for the efficacy of witness testimony. The central function of a forensic social worker is to testify as expert witness in the criminal court and this task is multifaceted and require expertise in addition to forensic social work knowledge. Efficacy in this role is determined by the judiciary that demand evidence presentation of corroborative value that is believable and of sufficient influence. Witnesses viewed as a credible source of accurate expert knowledge and adequate belief in their ability to succeed in this role is more influential than a witness lacking in witness credibility and self-efficacy. This study was conducted to investigate witness credibility and self-efficacy perceptions of forensic social workers to contrast these against testifying experience, social work experience, post-graduate education, work context and age. The two central concepts, witness credibility and witness self-efficacy, share theoretical and practical similarities, hence both concepts are required to develop a holistic understanding of efficacious witness testimony. This study represents the first attempt to analyse these concepts from a South African forensic social work perspective. By means of quantitative research the perceptions of 101 forensic practitioners situated in eight participating organisations across South Africa was measured. The Witness Credibility Scale assessed perceptions of witness credibility, defined in terms of trustworthiness, knowledge, confidence and likeability (Brodsky, Griffin, & Cramer, 2010). The Witness Self-Efficacy Scale measured perceptions of witness self-efficacy as represented by poise and communication style (Cramer, 2009). Forensic social workers in this study regard themselves as highly credible expert witnesses with a strong belief in the ability to expedite witness testimony successfully. As expert witnesses, forensic social workers self-report high on trustworthiness, but seem to lack sufficient confidence for the courtroom setting. Forensic practitioners with more court testimony experience believe they are more knowledgeable, trustworthy, credible and effective expert witnesses. Testimony delivery skills, as represented by poise and communication style, consistently appear to predict how knowledgeable, confident and credible the expert witness is viewed by the judiciary. The study concludes that enhanced witness confidence for court appearances may augment overall witness credibility and self-efficacy. Utility of the Witness Credibility and Witness Self-Efficacy Scales was assessed for the South African context.

Keywords: Forensic social worker, expert witness, witness credibility, witness self-efficacy

OPSOMMING

Die geloofwaardigheid en selfdoeltreffendheid van die forensiese maatskaplike werker as deskundige getuie in die kriminele hof is 'n belangrike aspek in die doeltreffendheid van deskundige getuienis. Die hoof funksie van 'n forensiese maatskaplike werker is om te getuig as deskundige getuie en hierdie taak is gekompliseerd en vereis vaardighede bo en behalwe forensiese fakkundige kennis. Effektiewiteit in hierdie rol word bepaal deur die justusie en benodig die gestaafde bewyslewering van getuienis wat vertroue skep en genoegsame invloed teweegbring. Deskundige getuies wat voorkom as 'n geloofwaardige bron van akkurate spesialis kennis met voldoende vertroue in hul vermoe om effektiewe getuienis te lewer het meer invloed as getuies van wie geloofwaardigheid en selfdoeltreffendheid in twyfel getrek word. Hierdie studie was onderneem om persepsies van deskundige geloofwaardigheid en selfdoeltreffendheid van forensiese maatskaplike werkers te bepaal en te kontrastreer teen getuie ondervinding, maatskaplike werk onderviding, nagraadse opleinding, werk omgewing en ouderdom. Die twee hoof konsepte, naamlik geloofwaardigheid en selfdoeltreffendheid deel teoretiese en praktiese ooreenkomste, dus is ablei konsepte noodsaaklik om 'n geheelbeeld to ontwikkel en sodoende effektiewe deskundige getuienis te verstaan. Die studie verteenwoordig die eerste poging om hierdie konsepte te analiseer vanuit 'n Suid Afrikaanse forensiese maatskaplilke werk oogpunt. Deur middel van kwantitatiewe navorsing is die persepsies van 101 forensiese maatskaplike werkers in agt verskillende organisasies regoor Suid Afrika gemeet. Die "Witness Credibility Scale" (Brodsky, Griffin, & Cramer, 2010) het die persepies van geloofwaardigheid gemeet, definieer in terme van betroubaarheid, kennis, selfvertroue en aangenaamheid. Die "Witness Self-Efficacy Scale" (Cramer, 2009) het persepsies van getuie selfdoeltreffendheid gemeet soos verteenwoording deur houding en kommunikasiestyl. Forensiese maatskaplike werkers in hierdie studie sien hulself as baie geloofwaardig as deskundige getuie met 'n sterk geloof in hul vermoe om getuienis suksesvol te lewer. Verder self-rapporteur forensiese maatskaplike werkers hoog op betroubaarheid, hoewel blyk gebrekkig te wees aan selfvertroue vir die hof omgewing. Forensiese maatskaplike werkers met meer deskundige getuie ondervinding glo hulle het meer kennis, is meer betroubaar en algeheel meer geloofwaardig en effektief in hierdie rol. Getuie vaardighede soos verteenwoordig deur houding en kommunikasiestyl, blyk konsekwent persepsies aangaande kennis, selfvertroue en geloofwaardigheid te voorspel. Bevindinge in die studie stel voor dat verhoogte getuie selfvertroue, persepsies van geloofwaardigheid en selfdoeltreffendheid in die deskundige getuie rol mag uitbou. Nuttigheid van die "Witness Credibility" en "Witness Self-efficacy Scale" was getoets vir toepaslikheid in die Suid Afrikaanse konteks.

Sleutel Terme*:* Forensiese maatskaplike werker, deskundige getuie, getuie geloofwaardigheid, getuie selfdoeltreffendheid

FOREWORD

The author selected the article format as stipulated in Regulation A.11.2.5 for a Master's degree in Social Work Forensic Practice.

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"According to Author (1999:10), child abuse is rising". In the case of legal articles, footnotes will be allowed.

To work towards uniformity in the alphabetical bibliography at the end of an article, the following examples of format are given:

Books:

Kuehnle, K. 1996. Assessing allegations of child sexual abuse. Sarasota: Professional Resource Press.

Articles:

Collings, SJ & Payne, MF. 1991. Attribution of causal and moral responsibility to victims of father-daughter incest: an exploratory examination of five factors. Child Abuse and Neglect, (15)4:513-521.

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Non-sexist language

Gender specific nouns and pronouns should not be used to refer to people of both sexes. The guidelines on sexist, racist and other discriminatory language should be observed. The following is intended to assist contributors to refrain from sexist language by suggesting non-sexist alternatives.

Sexist: Each respondent was asked whether he wanted to participate. The child should have enough time to familiarise himself with the test.

Non-sexist: Respondents were asked whether they wished to participate. Enough time should be allowed for the child to become familiar with the test."

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1.1 BACKGROUND AND RATIONALE FOR THE STUDY

The primary duty of the forensic social worker (hereafter referred to as FSW) is to act as an expert witness when allegations of child sexual abuse are tried in the criminal court (Dlamini, 2016, Geldenhuys, 2011). The task of testifying as an expert witness in a court of law is multifaceted and intricate in nature (Brodsky & Terrell, 2011). Expert witness testimony is particularly complex (Greeno, Bright, & Rozeff, 2013) as efficacy in this role presuppose proficiency of the subject matter, the ability to conduct scientific forensic investigations and composition of a well-reasoned evidence based court report (Fouché & Fouché, 2015, Joubert & van Wyk, 2014) that culminate in the presentation of facts during oral testimony in a manner that is believable and of sufficient influence. All three facets of human functioning, the intellect, emotion and personal conduct are operationalised during the testimony performance (Cramer, Neal, Decoster, & Brodsky, 2010).

This paper recognises that effective expert witness testimony presupposes a diligent, legally defensible, objective and reliable forensic investigation and subsequent court report. However, this research study specifically focus on how the oral testimony of the expert witness is perceived by the judiciary and whether the expert witness convey the impression of credibility and believability throughout the testimony. Perceptions of credibility are at issue and consequently the expert witness may or may not also possess the inherent character qualities associated with integrity.

The FSW have a court mandated duty to adequately educate the judiciary concerning the case at bar through a process of direct and cross-examination that is geared to test the legitimacy of the expert witness and subsequent evidence presented (Meintjies-Van der Walt, 2003). Expert witnesses are not equally adept with effective communication and testimony presentation under duress.

FSW's must display the capacity to regulate their emotions (Brodsky & Wilson, 2016) under pressure, keeping opinions organised and portray demeanour that translate in perceptions of a believable source of expert knowledge, thus the expert must seem credible (Brodsky & Pivovarova, 2016). Hence, expert status in a particular speciality field do not inevitably translate in being an expert at presenting expert witness testimony. Efficacy in this context specific role demand capabilities over and above familiarity with forensic social work subject matter (Geldenhuys, 2011).

From a judicial viewpoint, witness testimony is considered effective when regarded as adequately influential and of verifiable value (Brodsky, Griffin, & Cramer, 2010). In the witness role, the influential power of testimony is connected to the perceived integrity of the expert witness as a plausible source of accurate, expert knowledge (Brodsky et al., 2010, Brodsky & Pivovarova, 2016).

Former ground-breaking research established the development of two distinct, but hypothetical and practically related conceptual frameworks to understand and objectively measure efficacy of expert witness testimony. The constructs; ***witness credibility*** and ***witness self-efficacy*** emerged respectively. It is the writer's contention that investigation of both constructs simultaneously is required to develop a holistic overview of the potential outcomes of witness testimony.

The *witness credibility* construct is defined and operationalised in terms of four latent factors as depicted in figure 1; *knowledge*, *trustworthiness*, *confidence* and *likeability* that independently and collectively forecast how credible witness testimony is likely to be perceived (Brodsky et al., 2010).

Expert witnesses viewed as having a high degree of witness credibility are regarded as more influential and convincing than witnesses perceived to possess questionable integrity and hence experts with greater witness credibility are more persuasive and subsequently more effective in the courtroom (Brodsky & Terrell, 2011, Cramer, DeCoster, Harris, Fletcher, & Brodsky, 2011, Larson & Brodsky, 2014, Wilcox & Nicdaeid, 2018, Neal, Guadagno, Eno, & Brodsky, 2012, Parrott, Neal, Wilson, & Brodsky, 2015).

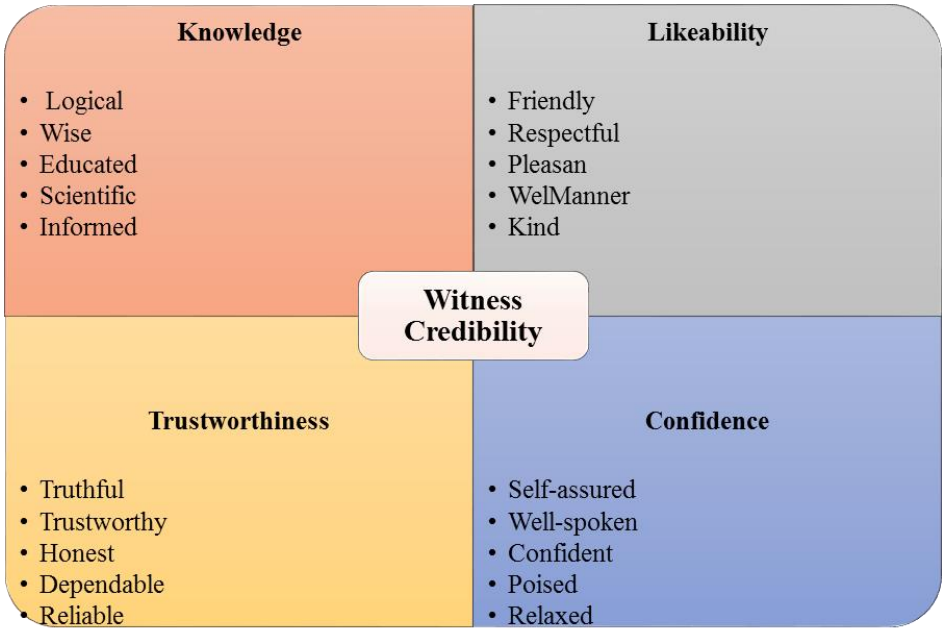

Figure 1: Witness credibility construct

The FSW augment perceptions of credibility by demonstrating *knowledge* of forensic social work subject matter (Greeno et al., 2013), understanding the role of an expert witness in context of the adversarial nature of court (Dvoskin & Guy, 2008) and specifically the purpose and intricacies associated with rigorous cross-examination (Greeno et al., 2013, Meintjies-Van der Walt, 2003). Knowledgeable testimony include the objective presentation of facts and arguments that are logically reasoned and scientifically validated, having considered all the relevant facts of the case (Blackwell & Seymour, 2015, Lerm, 2015, Thomas, 2015, Meintjies-Van der Walt, 2003). The knowledge component represents the dimension where acquired specialist knowledge and scientific attitude is demonstrated.

Perceptions of *trustworthiness* is enhanced by a FSW's proven due diligence while the case is ongoing and self-preparation for testimony (Neal, 2009). Self-preparation encompass a detail oriented approach, reviewing of literature, being familiar with case specifics and the court report along with continued supervision (Greeno et al., 2013, Thomas, 2015). Some writers argue that perceived trustworthiness is the most central of the four components that define witness credibility (Wechsler, Kehn, Wise, & Cramer, 2015, Ziemke & Brodsky, 2015, Zipse & Mohla, 2014).

Trustworthiness by logic assume honesty, transparency, not promoting hidden agendas or serving selfish motivations and most importantly, presentation of evidence that is unbiased, objective and truthful (Dvoskin & Guy, 2008, Shuman & Greenberg, 2003). During testimony presentation, perceptions of trustworthiness are improved by conceding limitations to professional knowledge and never memorizing or fabricating a response in an attempt to circumvent an *"I don't know"* answer (Neal, 2009, p. 46).

Witness *confidence* portrayed on the stand is argued by Greeno and colleagues (2013) to have a substantial bearing on overall perceptions of witness credibility. Ostensibly, the lack of composure and presence of excessive anxiety potentially affect the expert's pace of speech, the volume and the tone of voice (unpleasant or high pitched)(Barker & Branson, 1999, Larson & Brodsky, 2014). Nervous witnesses tend not to listen properly and listening to each word of each question is considered by Morris (2018) a crucial skill for effective witnesses to acquire.

Witnesses fail herein by either offering too much information, rambling off irrelevant data or presenting the facts in such a pedantic manner that listeners lose interest (Barker & Branson, 1999, Larson & Brodsky, 2014). Dial and Ellis (2010) opine that listeners associate excessive anxiety with uncertainty and tend to view the communicator with suspicion, as dishonest or guilty

and thereby diminish perceptions of witness credibility. Meintjies-Van der Walt (2003) stipulate that clarity of presentation is required, best executed by an assertive, powerful verbal speaking style from a witness who is able to clearly articulate findings in a constructive, calm, comfortable and non-defensive manner whilst being secure when challenged by attorneys (Dvoskin & Guy, 2008, Larson & Brodsky, 2014).

Witness demeanour in terms of non-verbal communication and idiosyncratic mannerisms displayed during testimony presentation also influence perceptions of witness confidence (Neal, 2009). Positive indicators of confidence include; eye contact, keeping an open deportment, tilting slightly forward, reflecting authentic emotions, and speaking loud enough and at a moderately fast pace (Blackwell & Seymour, 2015, Dial & Ellis, 2010, Dvoskin & Guy, 2008, Neal, 2009).

Boyle (2014) studied the impact of vocal pitch and determined that a lower pitched voice is preferred during testimony. Nagle, Brodsky and Weeter (2014) found that smiling behaviours among females are associated with higher credibility ratings, while Nagle and Brodsky (2012) discovered a positive correlation between smiling at appropriate times and perceptions of witness likeability. Negative non-verbal indicators include anxiety, excessive gestures and movements, hesitating or rushed responses, not making eye contact and a sagging posture (Dial & Ellis, 2010).

Likeability as an element that define witness credibility refer to any behaviour or personal characteristics the court will see during the testimony performance (Brodsky & Terrell, 2011). Behaviours that reduce likeability can potentially influence efficacy of the entire testimony (Neal, 2009) and can include a witness who appear offended, angry, irritated, argumentative or too sensitive (Barker & Branson, 1999, Greeno et al., 2013). Larson and Brodsky (2014) found that defensive experts who testify from a self-preservation paradigm tend to look for excuses and may resort to blaming external factors for oversights, invariably losing emotional self-control attempting to dismiss invasive cross-examination and thereby lessening perceptions of credibility. Likeability is also influenced by physical appearance including what the witness is wearing and general attitude such as presentation of a respectful courtroom decorum including time-keeping etiquette (Barker & Branson, 1999, Greeno et al., 2013).

The four elements, *knowledge*, *trustworthiness*, *confidence* and *likeability* in combination define and operationalize the *witness credibility* construct and are able to predict how credible witness testimony is likely to be perceived. *Knowledge* is considered central to forensic social work verifiable issues, *trustworthiness* convey inherent perceptions of reliability and honesty, *confidence* is credible if moderate and *likeable* experts are generally perceived as more credible (Brodsky & Terrell, 2011).

Likewise, each of the four elements independently have the ability to influence overall credibility perceptions to a greater or lesser degree. Experimental studies found that lower levels of knowledge oddly enough increased the likeability element of witnesses (Parrott et al., 2015), yet experts seen as both likeable and knowledgeable are perceived as highly credible (Neal et al., 2012). Trustworthiness appear to operate independently as variations on trustworthy levels appear to significantly affect overall witness credibility (Fuchsberger, 2013).

Witness self-efficacy is defined as the expert's subjective faith in their ability to testify effectively in court and this personal conviction pertaining aptitude in this role have a consequential bearing on the performance result of the testimony presented (Cramer et al., 2010). Thus, originators of the construct contend that greater levels of witness self-efficacy will translate in more positive outcomes on the witness stand, while lesser degrees of witness self-efficacy can be expected to result in less effective testimony.

Self-efficacy theory was originally developed by Bandura and Adams (1977) who postulated that personal views concerning the ability to accomplish a given task successfully have an influence on the eventual performance results of that task. Since Cramer and associates considered witness testifying as similar to social and education milieus, they applied Bandura's self-efficacy principle to the psycho-legal context of expert witness testimony and devised the concept witness self-efficacy (Cramer et al., 2010).

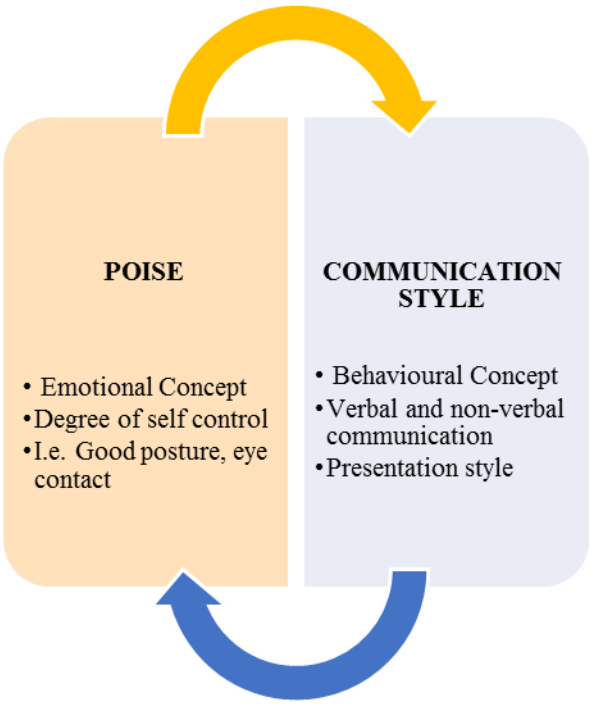

Figure 2: Witness self-efficacy construct

The construct is operationalised as illustrated in figure 2, in terms of two elements, namely *poise* and *communication style* which conjointly have the ability to estimate witness self-efficacy (Cramer et al., 2010). *Poise* refer to the degree of self-control or equanimity exhibited by the testifying FSW (Cramer et al., 2010). Emotional expressions such as anxiety, excitement, nervousness, fear and regulating these feelings indicate to what extent the witness have confidence in their skill to present testimony effectively. *Communication style* involve intellectual and personal conduct aspects of verbal and non-verbal expressions while testifying (Cramer, 2009).

Formerly stated, the two main constructs of this study present with theoretical and practical parallels as itemised hereunder (Cramer et al., 2014).

a) During testimony presentation, specific intellectual, emotional and personal conduct components are involved and required to facilitate both witness credibility and self-efficacy (Cramer, 2009).
b) Witness credibility (Brodsky et al., 2010) and witness self-efficacy respectively have the proven ability to forecast the performance results to be expected of court testimony (Cramer et al., 2014) as well as the ability to forecast judicial verdicts (Cramer et al., 2010, Cramer et al., 2011).
c) In addition, witness self-efficacy as independent concept can predict perceptions of overall witness credibility (Cramer et al., 2011, Cramer et al., 2010).
d) *Confidence* (witness credibility element) is considered highly influential in overall credibility perceptions and hence the scientific usefulness of the witness self-efficacy construct in predicting perceptions of witness credibility was verified by Brodsky and Pivovarova, (2016). Likewise, Cramer and co-researchers (2010) recommend that witness self-efficacy be studied to assess how it forecasts witness confidence.
e) *Poise* and *communication style* (witness self-efficacy) have touch points with all four elements that comprise *witness credibility*. *Poise* may be associated with *confidence*, *likeability* and *trustworthiness* while *communication style* is likely to affect how *knowledgeable*, *trustworthy*, *confident* and *likeable* the witness is perceived. On a practical level, the elements that comprise both constructs cannot be separated as every element operate in harmony with the other elements.

Due to the above mentioned conceptual overlap (Cramer et al., 2014) and potential ability of the two concepts to influence each other, the researcher opine that both concepts should be studied

simultaneously so that a well-rounded appreciation of efficacy in the witness testifying role may be developed.

Sufficient International articles exploring these two constructs in relation to expert witness testimony in the domain of forensic psychology was found (Boyle, 2014, Boyle, Brodsky, Dautovich, & Gaskill, 2014, Brodsky et al., 2010, Brodsky & Pivovarova, 2016, Brodsky & Wilson, 2016, Chlistunoff, 2016, Cramer, 2009, Cramer et al., 2011, Cramer, Decoster, Neal, & Brodsky, 2013, Cramer et al., 2010, Cramer et al., 2014, Fahmy, Snook, & McCardle, 2018, Franklin, 2012, Fuchsberger, 2013). Several resources exist that extrapolate best practice guidelines (Davis, 2017, Dial & Ellis, 2010, Dvoskin & Guy, 2008, Greeno et al., 2013, Morris, 2018) for effective witness testimony as well as pitfalls (Edens et al., 2012, Ferreres, 2014, Becker, 2016) that can impugn on the credibility of the expert witness. International authors stress the importance of cultivating strategies to fortify witness credibility and self-efficacy as these are considered important outcomes for the longevity of a career as a testifying expert (Brodsky & Pivovarova, 2016, Cramer et al., 2011).

However, this is not the case locally as paucity in articles regarding witness credibility and self-efficacy is observed in local literature. No articles could be sourced that discuss witness credibility or self-efficacy in relation to expert witness testimony by mental health practitioners in general or FSW's in particular from a South African perspective. The limited amount of local research available address the legal requirements for expert evidence admissible in court (Fouché & Fouché, 2015) along with the duties and responsibilities (Geldenhuys, 2011, Joubert & van Wyk, 2014, Lerm, 2015, Malatji, 2012) of the expert witness to educate the judiciary (Meintjies-Van der Walt, 2003). A select few research papers indicate that social workers require additional training to negotiate the challenges encountered when functioning within the adversarial judicial system (Malatji, 2012, Van Westrhenen, Fritz, Vermeer, & Kleber, 2017, Van der Merwe, 2015).

Consequently, researchers have no idea how credible South African FSW's as expert witnesses perceive themselves to be, nor how self-assured they are about their aptitude to succeed in this context specific role. In addition, consideration of South African contextual circumstances for FSW's are challenging (Van Westrhenen et al., 2017) and highlight the dire need for these professionals to acquire and augment witness credibility and self-efficacy.

South African child and adolescent sexual abuse prevalence rates is considered of the highest in the world (Artz, Burton, Leoschut, Ward, & Lloyd, 2016, Van Westrhenen et al., 2017). As a result the child sexual abuse case load before the judiciary is high and the cases that do proceed to trail are often lacking in supporting evidence (Sadan, Dikweni, & Cassiem, 2001), resulting in very low

conviction rates realized in South Africa (Brits, 2015). The testimony of the FSW who conducted the sexual abuse investigation represent a professional opinion based on the findings evaluated against a body of scientific forensic social work knowledge, which may or may not be accepted by the court as beneficial to the case at bar (Fouché & Fouché, 2015). Notwithstanding, it is important to be perceived as a professional who present evidence with integrity, in an unbiased manner and supported by factual data (Fouché & Fouché, 2015).

Significant to note; as a fairly new practice speciality, a code of ethics that delineate the roles and responsibilities of the FSW and their role as expert witness have not been formalised by the South African Council for Social Service Professions (hereafter referred to as SACSSP). A code of ethics is important as it offers guidelines for appropriate professional conduct in the specific duties to be performed for the court. Forensic practice is set apart from general social work in that the prime obligation of the FSW is to serve the interests of the court (Dlamini, 2016, Geldenhuys, 2011).

Yet, ethical dilemmas arise due to the fact that one party to the legal proceedings are likely to pay for the expert witness services rendered (Ferreres, 2014). As a result, the professional is caught in a triangle between their duty to serve the court and the two opposing parties of the legal dispute. Allegations of unprofessional conduct due to the blurring of ethical boundaries and accusations of partiality in favour of one litigant are not uncommon in practice (Ferreres, 2014, Meintjies-van der Walt, 2006). Allegations and accusations can have disastrous implications for the perceived credibility and self-efficacy of the testifying expert and even more so if the expert do not handle these concerns skilfully during cross-examination.

On the witness stand the expert witness and opposing attorney have competing goals. During cross examination the expert witness attempt to protect and maintain perceptions of credibility and self-efficacy while council's efforts are geared to challenge, test and diminish the perceived integrity of the expert and/or the evidence presented (Davis, 2017, Geldenhuys, 2011, Schultz, 2014, Vaughan-Eden, 2008). The seasoned expert witness knows how to deal with the tactics employed during cross examination while those forensic practitioners less familiar with the nuances of skilful cross examination may lose emotional self-control, step into the traps laid out for them and in so doing aid opposing council to diminish their own credibility and self-efficacy.

Internationally, expert witnesses in general, but inclusive of forensic psychologists seem apprehensive about testifying in open court (Dvoskin & Guy, 2008, Greeno et al., 2013, Morris, 2018). They are fearful of the unknown in terms of what questions may be asked and the consequences that may follow if they fail in this role (Morris, 2018). Malatji (2012) report that

South African FSW's find witness testimony nerve-wracking and cross-examination particularly fear provoking.

Yet again on the International front, the legal counterparts appear to harbour negative feelings concerning the potential contribution of social scientists to legal proceedings (Edens et al., 2012, Wechsler, Kehn, Wise, & Cramer, 2015, Ziemke & Brodsky, 2015). Mainly, judicial members opine that expert testimony by social scientists are wishy washy and easily influenced by personal motivations such as monetary gain, which really fan the flames of the 'hired-gun' accusations so often levelled against expert witnesses (Edens et al., 2012, Wechsler et al., 2015). How the judiciary perceive the overall contribution of FSW's from a South African perspective concerning the settlement of criminal and civil disputes remain unclear.

Given the importance of and capacity of witness credibility and self-efficacy to predict excellence in the witness testifying role, the challenges associated with high child sexual abuse prevalence, the notorious lack of corroborating evidence in these cases, the absence of an ethical code for forensic practitioners and the overarching goals of cross-examination to test the veracity of the expert and the evidence, the researcher maintain that indigenous research is needed to address the witness credibility and self-efficacy gaps in literature from a South African forensic social work perspective.

Clearly there is a need for vigilance and the implementation of measures that mediate threats to the credibility and self-efficacy of FSW's called to testify as expert witnesses. It is conceivable that forensic practitioners are equally apprehensive about executing their duty to the court and according to Greeno and co-workers (2013), self-doubt harboured by professionals or the *"perceived inability"* (O'Keefe, 2004, p. 33) to succeed in this role may be the very obstacle that impede successful outcomes.

Cultivation of witness self-efficacy have the ability to improve the potential outcomes to be expected and these enhancements combined with elevated assessments of perceived credibility can improve the overall influence and efficacy of the testimony presentation. Specialised training in the art of expert witness testimony may mediate the impact of fear, anxiety and related insecurities. For instance, FSW's who lack confidence may acquire supplementary preparation in a mock court setting, which Lywan and Friedman (2015) argue, greatly enhances the ability of forensic trainees to speak with self-assurance in legal settings.

Improved witness credibility and self-efficacy therefore could mean a greater contribution to the settlement of legal disputes and will equally serve the reputation of the professional as a person

with expert knowledge that can be believed and trusted. The stakes for/against protection and prosecution remain high and it is of utmost importance that this role is executed with great mindfulness and skill.

Accordingly, there is a need to test credibility and self-efficacy perceptions held by local FSW's pertaining their role as expert witnesses. Analysis hereof would provide a baseline indication pertaining local perceptions of the individual elements that operationalise each construct and the overall estimation of each concept respectively. Combining analysis of the two main constructs with demographical data such as work experience, education, work context and age may allude to variables that influence perceptions of witness credibility and self-efficacy of forensic practitioners. Furthermore, an in depth correlation analysis may provide insight into the likelihood that each independent construct or its separate elements influence one another. How these elements and the two constructs correlate independently and holistically when compared with demographical variables becomes the focus of the proposed study.

1.2 PURPOSE STATEMENT

The purpose of this research study is to establish a baseline indication of how credible and efficacious South African FSW's perceive themselves to be when testifying as an expert witness in a court of law. In addition, the demographic variables of years' experience as a social worker, the number of times the FSW formerly testified, post-graduate education, the current work context and age of the practitioner will be examined to determine if any statistically significant correlations exist with the two main constructs identified.

Should the current study sample be sufficient, the researcher will pursue confirmatory factor analysis (hereafter referred to as CFA) of the two measurement instruments utilised to measure the main constructs. The process of regression analysis would inform whether the measurement instruments may be utilised with adequate accuracy in the South African context. Successful validation of these instruments could result in utility thereof as a self-preparation assessment apparatus. Importantly, future research studies on the observed witness credibility and self-efficacy may establish whether or not the assessed FSW perceptions are reciprocated by the judiciary.

Results from this study may illuminate on the elements that FSW's attained and those that require additional professional development. Presently, very little is known about how trustworthy, knowledgeable, likeable and confident local forensic practitioners view themselves as expert witnesses. Similarly, limited research indicates the perceptions of poise and communication style

and how the testimony delivery skills translate into a strong belief in the ability to succeed in this role. What *is* known; the cultivation of witness credibility and self-efficacy are indispensable and require specialised expertise above and beyond familiarity with forensic social work knowledge and practitioners generally appear to lack enthusiasm to execute this duty to the court.

Due to the paucity observed in local research concerning perceptions of forensic experts and their efficacy on the witness stand, translated through witness credibility and how confident they feel in succeeding in this context specific role, this study may contribute in establishing the proposed value of developing and enhancing witness credibility and self-efficacy in promoting the veracity and influential power of testimony in court.

Examining the bi-directional relationship between the constructs and contrasting these against the variables identified may provide support for additional training requirements to better prepare practitioners for this role.

The field of forensic social work was chosen for this study as expert witness testimony is central to the primary purpose of a FSW, testifying as expert witness is regarded a multifaceted and demanding task and since witness credibility and self-efficacy is considered essential to the specific performance outcomes to be expected in this role.

1.3 RESEARCH QUESTIONS

The research study is informed by the following assumptions regarding the central constructs of witness credibility and self-efficacy as perceived by the research population:

- Hypothesis 1: Perceived witness credibility and self-efficacy are influenced by age, work context, tertiary education level, years' experience as a social worker and the number of times the FSW testified as expert witness in court

- Hypothesis 2: Perceived knowledge, trustworthiness, confidence and likeability correlate positively with perceived witness self-efficacy as represented by poise and communication style

- Hypothesis 3: Perceived witness credibility are not determined by age, work context, tertiary education level, years' experience as a social worker and the number of times the FSW testified as expert witness in court, but by witness self-efficacy as represented by poise and communication style

The research questions addressed by testing the hypotheses according to the research design are as follows:

1. Does age, work context, tertiary education level, years' experience as a social worker and the number of times the FSW testified as expert witness in court contribute to higher ratings of perceived witness credibility and self-efficacy?

2. Is there a significant relationship between the two central constructs of witness credibility and witness self-efficacy?

3. Does the construct of witness self-efficacy predict the degree of witness credibility as perceived by the FSW as expert witness

1.4 OBJECTIVES OF THE STUDY

The purpose of this study is to understand whether the independent variables of *age*, *years' experience as a social worker, the number of times the FSW testified as expert witness, post-graduate qualification* and *work context* predict the degree of perceived witness credibility and self-efficacy among FSW's in the task specific role of expert witness. Similarly, to understand whether witness self-efficacy instead of the independent variables predict perceptions of witness credibility or whether the sub-factors of this concept contribute to a greater or lesser extent to perceptions of witness credibility. Therefore, the general aim of the study is to investigate the nature of the relationships amongst the independent variables and the constructs of witness credibility and self-efficacy amongst FSW's in the role of expert witness.

The general aim is addressed by the following objectives:

- To collect a quantitative dataset from FSW's with former testifying experience, by means of an online survey designed on the Google Forms platform that contain two measurement instruments applicable to the two main constructs
- To investigate the relationships amongst the dependent and independent variables
- To evaluate and compare the research findings against the backdrop of available literature and to report the conclusions related to the two central constructs

1.5 RESEARCH METHODOLOGY

1.5.1 Research approach and design

A quantitative approach will be utilised in this study. A quantitative research approach is a scientific and objective method of collecting data in the form of numbers with the goal of generalising findings to the population studied (Grinnell & Unrau, 2011). The research design represents the most suitable road map for executing a research study. A relation-correlation cross-sectional survey design will be applied to study the research problem.

The study may be considered exploratory, as the researchers propose to explore relationships between variables, yet non-experimental in nature as no variables will be manipulated to achieve the outcome. This research project intends to investigate whether relationships exist among specific variables that influence perceptions of witness credibility and self-efficacy, and to what extent these relationships exist or correlate when compared with demographical data.

This design incorporates the objectives of correlational examination within a survey design, in this case a Google Forms electronic survey questionnaire. A correlation is considered a *"measure of association of the relationships between two phenomena"* (Walliman, 2005, p. 116). Walliman (2005) indicate that a relational correlation design is particularly suitable when little or no previous work have been done and the outcome of the project can form the foundation for future research.

A correlation design allow for measurement of a number of variables simultaneously, as will be the case in this study (Walliman, 2005). This research study requires comparisons of mainly two kinds, between-subject score difference comparisons and within-subject correlational comparisons. This design also accommodates prediction analysis to establish which variable is the most likely predictor of perceptions of witness credibility and witness self-efficacy respectively.

1.5.2 Population and sampling

Grovers and co-authors (2009) define the target population as the group of people about whom survey statistics will make inferences about. On the 15th of March 2018, the SACSSP confirmed that 12500 social workers are registered to practice in South Africa. However, it was not possible to confirm the population size or location of social workers that have former experience testifying as an expert witness; thus regarded a FSW. Hence, to establish a representative sample in this study was not feasible. The purpose of the study is to explore constructs and theoretical relationships and thus representation is not as crucial as ensuring sufficient variation in

demographic characteristics. At best an attempt will be made to target known locations where FSW's are likely to be found.

Purposive non-probability sampling will be applied based on the intended inclusion of social workers that have testified at least once as an expert witness in the criminal court. Purposive sampling actively seek out respondents because of their unique knowledge pertaining to the area under study and their willingness to participate (Grinnell & Unrau, 2011). Snowball sampling as the means of personal referrals will be employed as an alternative data collection strategy. Babbie (2005) suggest that snowball sampling is suitable when the population is difficult to locate.

The research study will purposively target sampling units in eight sampling pools known to represent FSW's with former experience testifying as an expert witness, namely;

- The South African Association for Social Workers in Private Practice (SAASWIPP)
- The Family Violence, Child Protection and Sexual Offences Unit in the South African Police Service (FCS in SAPS)
- Masters in Forensic Practice alumni with the University of North West (between 2006 and 2018)
- The Office of the Family Advocate in the Department of Justice and Constitutional Development
- Thuthuzela Centres in the Department of the National Prosecuting Authority (NPA)
- The Teddy Bear Clinic (Non-governmental Organisation)
- NG Welfare (Non-governmental Organisation)
- Patch (Non-governmental Organisation)

The researcher will apply for and seek to obtain goodwill permission from each of the above listed organisations and it is likely that mediators may be utilised to facilitate the identification of potential respondents. In order to minimise sampling error, the researcher will aim for the maximum quantity of respondents in the sample (Grinnell & Unrau, 2011).

To perform correlational analysis, sample units between 100 and 120 are preferred. The data collection process targeted 186 FSW's and finally 101 respondents participated in the online survey questionnaire. Online surveys notoriously yield low response rates (Grinnell & Unrau, 2011) and thus a response rate of 54.3% is considered acceptable.

1.5.3 Data collection and measurements used in the study

A survey refer to a methodology by which information is collected from a sample of individuals (Rubin & Babbie, 2016) in the hope of answering a particular research question (Dillman, Smyth, & Christian, 2014). Survey research is considered versatile and efficient, can be administered electronically and lends itself to the sampling of large populations at a time (Rubin & Babbie, 2016).

This research study shall collect data by means of an online web-based survey instrument designed on the Google Forms platform, a server controlled by the researcher and distributed via a link contained in the body of an email along with the advertisement and informed consent document. As such, the study will be reliant on email addresses of potential respondents. Participation will require an affirmative response to the first two elimination questions posed;

- Are you a registered social worker?
- Have you ever testified as an expert witness in the criminal court?

The research study will incorporate demographic data items (age, post-graduate qualification, years' experience as a social worker, number of times the FSW testified as expert witness and work context) with three standardized measurement instruments to measure the two distinctive constructs, specifically; *witness credibility* and *witness self-efficacy*. The third measurement instrument will be included to control for social appeal bias inherent in the two former self-administered questionnaires.

Witness credibility will be measured by the Witness Credibility Scale (WCS) developed by Brodsky, Griffin and Cramer (Brodsky et al., 2010). *Witness self-efficacy* will be measured by means of the Witness Self-Efficacy Scale (WSES) developed by Cramer, Neal, DeCoster and Brodsky (Cramer et al., 2010). The validity of the two scales shall be enhanced by the inclusion of the Short Form Social Desirability Scale (SDS) originally developed by Marlowe-Crowne. The SDS allow for statistical measurement of socially acceptable prejudiced responses in the WCS and WSES.

The WCS, WSES and the SDS have been tested although not standardised in the South African context. The intention is to establish scale properties such as reliability and construct validity by means of CFA for the WCS and WSES in this study. The former established properties of the three measurement instruments are as follow:

a. Witness credibility construct

The Witness Credibility Scale (WCS) developed by Brodsky, Griffin and Cramer (2010) is a tool used to objectively determine the perceived credibility of the expert witness. The scale focus on the importance of an expert witness to appear credible on the witness stand, over and above being well versed in the scientific field of choice (Brodsky & Pivovarova, 2016). Brodsky, Griffin and Cramer (2010) describe the WCS as a Likert-type scale that contain 20 questions of paired bipolar adjectives which are answered in a range of 1 to 10.

The WCS measure perceived credibility in terms of four factors; namely *confidence*, *likeability*, *trustworthiness* and *knowledge* (Brodsky et al., 2010). Each of the four factors are measured on a subscale of five questions each. The factor *confidence* refer to an expert witness who is self-assured, well-spoken, confident, poised and relaxed (Brodsky et al., 2010). *Likeability* is defined as a kind, friendly, pleasant, respectful and well-mannered witness (Brodsky et al., 2010). Scale originators operationalized *trustworthiness* as a truthful, trustworthy, honest, dependable and reliable expert witness (Brodsky et al., 2010). The factor *knowledge* is defined by an expert witness who appears logical, informed, wise, educated and scientific (Brodsky et al., 2010). All four of these factors are central to the construct of witness credibility and deemed essential for expert witness testimony to be perceived with sufficient influence and regarded as dependable (Brodsky et al., 2010).

The WCS represent a solution to unreliable determinations of witness credibility by offering an objective assessment of how credible a witness appears on the witness stand. The WCS is chosen for its ability to provide an objective measurement concerning how credible South African FSW's perceive themselves to be when testifying as an expert witness.

The WCS is scored by adding the total score for all 20 questions and the higher the score the greater the level of perceived credibility or insight on the four sub-scales. The original intention of Brodsky and co-workers was to calculate a total score for overall credibility however, the developers determined that a summative score for the four subscales respectively provide added utility, particularly when the independent elements significantly influence the expert's overall credibility (Brodsky et al., 2010). See annexure A.

The WCS is available in the public domain and though no permission from the scale developers is needed, permission was obtained from Professor Stanley Brodsky on 2 July 2017.

The WCS initially contained 41 items which was reduced to 20 items in the final scale (Brodsky et al., 2010). The scale was subjected to 264 undergraduate students. CFA data yielded a final

scale of four factors specifically; *knowledge*, *likeability*, *trustworthiness*, and *confidence* (Brodsky et al., 2010). The WCS was tested in six subsequent studies. The scale was used in research investigating witness confidence (N = 317, technology usage in the courtroom (N = 289), the ethnicity of an expert witness (N = 253), defendant remorse (N = 128), expert witness eye-gaze (N = 133) and a normative study (N = 264)(Brodsky et al., 2010).

Across all six studies, high inter-correlations was found between the subscales and the four factor structure stayed constant (Brodsky et al., 2010). Cronbach alpha values were as follows: confidence (.89 to .96), likeability (.51 to .94), trustworthiness (.92 to .98) and knowledge (.86 to .96)(Brodsky et al., 2010). Internal consistency with an alpha value below .80 was reported once and investigators attributed this occurrence to the random patterns or reactions to differing witnesses (Brodsky et al., 2010). The four factors yielded consistently high overall internal consistency in credibility scores (.91 to .98) and on the whole the WCS was reliable (α = .95) and each subscale was independently reliable (Confidence, α = .89, Likeability, α = 86, Trustworthiness, α = .93, Knowledge, α = .86)(Brodsky et al., 2010).

Construct validity was tested by using 299 participants who was asked to rate witnesses on aspects of credibility in three different confidence condition settings (Brodsky et al., 2010). The WCS and an adjective checklist was used to produce convergent and discriminate data for the subscales and 46 of the 50 correlations were significant at the .01 level and 17 of the 46 significant correlations were above .50 as determined by Pearson correlation coefficients; thus offering support for concurrent and divergent validity of the WCS (Brodsky et al., 2010).

In an exploratory study of meta-factors of expert witness persuasion, high internal consistency for the WCS was confirmed by Cramer, Parrott, Gardner, Stroud, Boccaccini and Griffin (2014). This study explored the interrelated concepts of credibility, efficacy and personality to develop an integrated paradigm for understanding the apparatus that facilitate expert witness influence (Cramer et al., 2014). This 2014 study combined the Five-factor Mini-markers scale of personality traits with the Observed witness self-efficacy and WCS whereby exploratory factor analysis for a sample of 314 undergraduate students yielded a two factor model for understanding witness persuasion, specifically; character and efficacy (Cramer et al., 2014).

Due to the objective nature of the WCS, it is particularly useful to explore the dynamics of testimony influence and efficacy, either as an independent instrument or in combination with related assessment instruments.

b. Witness self-efficacy construct

The Witness Self-efficacy Scale (WSES) developed by Cramer, Neal, DeCoster and Brodsky (2010) is a scientific evaluation instrument used to assess an expert witness's certainty in their ability to present effective witness testimony in court. Self-efficacy theory was delineated by Bandura in the 1980's, referring to a person's internalised belief about their ability to accomplish a specific undertaking (Bandura & Adams, 1977). Research since the 1980's support a strong association between results and the level of task specific self-efficacy (Cramer et al., 2010).

Based on forensic psychology literature, Cramer and co-workers determined that the courtroom milieu and education of the judiciary is similar to teaching and social conditions as the expert draws on the intellectual, emotional and personal conduct facets of human behaviour to accomplish outcomes in both contexts (Cramer, 2009). Hence, Bandura's original self-efficacy theory was applied to the legal context of testifying; resulting in the concept witness self-efficacy defined as the witness' confidence in their capability to testify effectively as expert witness in open court.

The WSES consist of 18 questions, each one rated on a five-point measurement with perceptions of not well on the one hand and very well on the other hand and consist of two dimensions; specifically *poise* and *communication style* (Cramer et al., 2010).

Developers conceptualised *poise* as the extent of restraint exhibited by the expert while in the witness box (Cramer et al., 2010). Self-control is present when the witness is able to stay calm and not appear overly nervous, as such the concept is emotionally loaded thereby denoting to the ability to regulate emotions when testifying (Cramer et al., 2010). Behavioural aspects of poise can include good posture and retaining eye contact, whereas the intellectual aspect refer to arranging arguments in a logical and methodical manner (Cramer, 2009).

Communication style concerns personal conduct features such as the verbal and non-verbal manner that information is presented in court and include similar personal conduct and intellectual aspects to poise, (i.e. good posture, eye contact and arranging arguments)(Cramer et al., 2010). However, communication style is mainly considered behavioural while poise is a predominantly expressive concept, yet both factors are central to predicting the confidence of the witness to present effective witness testimony (Cramer et al., 2010).

In the first study of exploratory and confirmatory factor analysis of the WSES, the preliminary 42-item group was reduced to 18 items based on hypothetical uniformity (Cramer et al., 2010). 377 Psychology students completed the WSES, a general and social self-efficacy measurement and

185 students was used for exploratory factor analysis and 192 for CFA (Cramer et al., 2010). Varimax rotation for principal components analysis with a factor loading cut-off of .40 was applied while academics retained items loading on more than one factor in both factors (Cramer et al., 2010).

As indicated, examination of the factors revealed two latent variables, specifically; *poise* and *communication style* of which poise explained 51.17% and communication style accounted for 6.9% of the variance in witness self-efficacy (Cramer et al., 2010). According to Cramer and co-researchers (2010) the results indicate a robust and constant factor structure supported by a satisfactory to good model fit.

Validation exploration of both elements (poise and communication style) indicated significant moderate positive associations with general and social-efficacy, thereby indicating that the theoretical concepts that should be related, are indeed correlated (Cramer et al., 2010). A non-significant association with social desirability was found, thereby indicating that the two concepts that should not have any association, did not have any relationship (Cramer et al., 2010). Social desirability is understood as the predisposition of people to yearn for social acceptance and due to this desire for social appeal, people generally have a propensity to present themselves in a more positive light expressed in self-rated questionnaires by choosing responses they expect will portray a more favourable image (Verardi et al., 2010). Cramer and colleagues concluded that the instrument had solid internal consistency, convergent and divergent validity (Cramer et al., 2010).

In the second study by developers in 2010, a group of mock witnesses self-rated their testimony in terms of witness self-efficacy, extraversion, general and social efficacy. Another group of mock jurors was used to rate the mock witnesses on perceived witness credibility, believability, verdict and agreement with testimony. The aim of this study was to determine whether the self-assessed witness self-efficacy scores of the mock witnesses would forecast the ratings attributed to them by the mock jurors. A multivariate general linear model was utilised to evaluate if the elements *poise* and *communication style* would forecast sentencing outcomes, believability, agreement and/or credibility ratings.

Results from this study indicated that both *poise* and *communication style* respectively forecasted a number of juror assessed ratings, for example poise definitively informed innocence likelihood, agreement with testimony and witness credibility. Communication style informed agreement with testimony and witness credibility.

In this model, the witness self-efficacy elements, *poise* and *communication style*, was the only elements with forecasting ability, thereby suggesting robust forecasting power of the WSES for testimony results (Cramer et al., 2010). Since the WSES elements proved forecasting ability for overall witness credibility, the model was subjected to multivariate analysis a second time, utilising similar independent variables to estimate juror assessments of the witness credibility sub-factors of trustworthiness, likeability, confidence and knowledge (Cramer et al., 2010).

Results from the second model analysis specify that both *poise* and *communication style* positively forecasted juror assessments of the factor *confidence* in the witness credibility construct. Therefore, both WSES elements forecast not only overall witness credibility, but also witness confidence respectively. According to Cramer and co-researchers (2010), this finding is highly significant since it afforded empirical proof of the forecasting value of the WSES.

Due to the undeniable positive correlation between confidence and witness credibility and credibility and judicial decision making, researchers studied the likelihood of a confidence-credibility mediational model in 2011 (Cramer et al., 2011). The study hypothesized and finally confirmed that credibility does mediate the relationship between various degrees of witness confidence and juror verdicts as illustrated below:

Confidence level ⟷ Credibility ⟷ Juror verdicts

Study results verify that expert witness credibility facilitate the relationship between low witness confidence and juror verdicts, however with a curvilinear association which indicate that the maximum perceptions of credibility or influence are associated with modest confidence levels (Cramer et al., 2011). Confidence in this study was defined in terms of behavioural testimony presentation expertise, unlike other studies who relied on self-assessment scales to evaluate confidence and thereby concluded a linear relationship. Cramer and co-researcher suggest that the desired confidence level for optimal perceived credibility may depend on the context of the case (2011).

Further exploration in 2014 utilised the WCS and WSES simultaneously with the Five-Factor model whereby witness credibility, efficacy and personality was incorporated in one study and subjected to meta-factor analysis to attempt a simplified understanding of expert witness persuasion. Regression analysis identified two meta-factors, specifically *character* and *efficacy* (Cramer et al., 2014).

Research findings of the earlier mentioned studies illustrate the usefulness and worth of the WSES as exploratory, assessment and predictive tool when investigating the abstract influence between expert witness testimony, credibility and efficacy in this role. Likewise, as indicated the factor *confidence* have the ability to significantly influence overall perceptions of witness credibility and hence, it is expected that witness confidence may account for the greatest variance in the WCS results in the current study. (Cramer et al., 2010). For the above mentioned reasons the researcher decided to include the WSES and investigate the concept independently from witness credibility to determine if these directional pathways are present in the study population.

The WSES is calculated by adding all the scores for each item on the questionnaire and the higher the tally the greater the level of witness self-efficacy. The WSES is available in the public domain, however on the 19th of August 2017 one of the developers was informed of the intention to include the instrument in this study. See annexure B.

c. Socially desirable responding

Marlowe-Crowne originally developed the Social Desirability Scale (MCSDS) in 1960 as a means to quantify responses that present with social appeal prejudice (Fischer & Fick, 1993). People want to be socially acceptable and due to this have an proclivity to portray themselves more favourably when self-reporting on questionnaires (Van de Mortel, 2008). Consequently, academics recommend the inclusion of an instrument that can measure and detect respondents with this tendency in studies reliant on self-assessment questionnaires. Quantifying social appeal responses enable the researcher to interpret subsequent results with a more balanced perspective.

In the absence of a social desirability measurement instrument, the identified correlations among variables may become skewed and consequently fail to accurately assess the intended concept (Van de Mortel, 2008). To ensure the soundness of the two central scales, the Short Form MCSDS developed by Reynolds in 1982 will be included to detect social appeal predispositions among responders, to be analysed with a regression analysis statistical technique (Greenberg & Weiss, 2012).

The researcher opted to utilise the shortened version that contain 13-questions as proposed by Reynolds (1982) as opposed to the original 33-item instrument in an effort reduce response fatigue. The 13 questions are true/false statement illustrating behaviours which are socially preferred but are highly improbable for the regular person.

The scale is scored by obtaining a total score ranging from 1 to 13, zero being the lowest value and thirteen the highest level of social appeal prejudice. Items given a score when true are questions 5, 7, 9, 10 and 13, whereas items 1, 2, 3, 4, 6, 8, 11 and 12 are given a score when answered false. See annexure C.

The Short Form SDS is available in the public domain and no permission from the scale developers is needed.

The Short Form 13-item SDS has been subjected to validation studies by several researchers with various samples. Zook and Sipps (as cited in Greenberg & Weiss, 2012) cross validated the scale using two samples of undergraduate and one sample of graduate students from six universities (Greenberg & Weiss, 2012). The Kuder Richardson formula 20 (KR-20) was determined for each group and coefficients ranged from .63 to .82 with a combined coefficient of .74 (Greenberg & Weiss, 2012). A general population sample was subjected to the scale by Fraboni and Cooper (as cited in Greenberg & Weiss, 2012). This study demonstrated robust internal consistency (Greenberg & Weiss, 2012). 633 Management undergraduate students completed the study by Loo and Loewen (as cited in Greenberg & Weiss, 2012) in which comparable coefficients and a comparable fit index of .85 for the scale was found.

In the more recent study by Greenberg & Weiss, (2012), 241 police officers was subjected to the Short Form SDS, the Buss-Perry Aggression Inventory, the Greenberg Prejudice Scale and 70 of the original participants also completed the MMPI-2 scale. An overall Cronbach alpha value of .74 was concluded in the study; as such supporting reliability analysis findings of the former validation studies (Greenberg & Weiss, 2012).

External validity of the Short Form SDS was confirmed by correlations between the total scores of the other measuring instruments (Greenberg & Weiss, 2012). The Short Form SDS negatively correlated with the Buss-Perry Aggression Inventory and the Greenberg Prejudice scale, thus a result that confirm the accuracy of the social desirability finding since aggression and prejudice attitudes are discouraged among police officers (Greenberg & Weiss, 2012). Greenberg and Weis (2012) concluded that correlations with the other instruments such as the K and L scales from the MMPI-2 support the construct validity of the Short Form SDS.

Thus, the SDS is a useful instrument to include in self-report surveys due to its ability to reflect social appeal trends alongside relationships detected in the two central scales. SDS results obtained and interpreted alongside the two central scales facilitate a holistic understanding of self-report trends in the proposed study.

1.5.4 Data analysis

The data in this study will be analysed in collaboration with Professor Suria Ellis in the Department of Statistical Services with North West University by means of IBM SPSS Version 25. Data analysis for this study will comprise of the following stages:

1. Data collected by means of Google Forms will be coded and cleaned to eliminate data entry errors for data analysis to be accurate
2. The characteristics of the sample is to be analysed by means of univariate descriptive techniques to compile a profile of the respondents in the sample
3. Scale reliability of the WCS and WSES will be estimated by means of Cronbach's Alpha coefficient
4. Construct validity by means of CFA for the WCS and WSES will be established by means of Amos 25 to assess whether the scales accurately measure the intended constructs as proposed by theoretical assumptions and scale developers
5. Correlations will be analysed by means of Pearson correlation or non-parametric alternatives such as Spearman's Rank Order correlation to determine whether any statistically significant relationships exist among the constructs, latent elements and demographic variables identified
6. Group differences will be analysed by means of ANOVA and alternative non-parametric techniques to assess model fit indices for the underlying theory proposed by developers
7. Mean scores on the WCS and WSES will be treated as dependent variables while the demographic variables will be considered independent or grouping variables in order to assess the bi-directional relationships among the constructs
8. Prediction analysis will be undertaken with structural equation modelling and regression analysis techniques utilizing Amos 25 to estimate the directional pathways identified in the correlation analyses

1.6 ETHICAL ASPECTS

The topic under investigation is not highly sensitive thereby reducing the ethical risk inherent in the study. Yet, the author considered and planned for risk mitigation of several ethical concerns pertaining the research study.

Firstly, the researcher considered the issue of confidentiality as Grinnell and Unrau (2011) regard this aspect the most critical issue in survey research methodology to prevent the possibility of

harm to respondents. In order to protect confidentiality of respondent information, the following steps will be taken:

- The email address and SACSSP registration numbers will be separated from the response data set upon data collection completion and stored in a separate electronic file on the researcher's password protected computer
- Access to the password protected computer will be restricted to the researcher only
- Identifying particulars such as name, surname or ethnicity will not be requested from respondents
- No part of the data collection process will be outsourced to another person
- The feature to collect IP addresses from respondents will be disabled on the Google Forms platform
- Only the dataset with responses, excluding email address and SACSSP registration numbers will be used for data analysis
- Survey data will be pooled for analysis, as such no individual response analysis will be undertaken
- The response dataset will be handed to the COMPRES office upon completion of the study where it will be stored for five years and then deleted permanently
- The researcher and research supervisor have undergone research ethics training and are familiar with the responsibility to make every effort to protect confidentiality of the information collected

The researcher contemplated Rubin and Babbie (2016) who argue that respondents cannot be assured of total anonymity is survey research studies due to the dependence on email addresses to reach potential respondents. The study may have been anonymous if only one email was sent to respondents. However, due to high non-response rates in online survey research, the researcher emailed follow-up reminders to non-responders (Grinnell & Unrau, 2011). To mitigate risks associated with inadequate anonymity, the following steps will be taken:

- Upon completion of the data collection proses, email addresses and SACSSP registration numbers will be separated from the response data set
- Only the dataset with responses, excluding email address and SACSSP registration numbers will be used for data analysis
- Results from the study will be pooled and no reporting on individual responses will be undertaken

The author considered the recently ratified Protection of Personal Information (PoPI) Act No. 4 of 2013 that necessitate permission to obtain personal contact information. Goodwill permission to establish contact with potential respondents was obtained from each of the eight participating organisations. The PoPI Act No.4 of 2013 was considered as part of the goodwill permission processes and resultantly several mediators facilitated contact with potential respondents.

Potential respondents were informed concerning the purpose, methods and potential outcome of the research study by means of a) an advertisement contained in an email and b) the informed consent document outlining the details of the study. Respondents was required to confirm whether they consent to participation at the onset of the survey. Voluntary consent was assumed when respondents proceeded with participation. In addition, written goodwill permission will be sought from the eight organisations target for inclusion in the study.

The potential harm, whether psychological and/or emotional, respondents may experience as a result of participation in the study was duly considered. The topic under investigation is not highly sensitive, thereby reducing the ethical risk inherent in the study. Alas, Rubin and Babbie (2016) opine respondents may experience psychological harm for a variety of reasons. For instance, upon reflection on former witness testifying experiences, negative emotions of inadequacy or incompetence may arise and adversely affect the social worker's self-image.

Notwithstanding, the survey questionnaire was completely online and therefore the researcher had no way of assessing respondent harm although respondents was able to self-exit the study at any moment. Data collection on the Google Forms server is transparent and obvious to the respondents (Grinnell & Unrau, 2011). Furthermore, respondents were referred to existing supervision structures and encouraged to contact the researcher should counselling be required. No negative experiences were reported to the researcher.

Potential risk to respondents and compliance with ethical research practices was further safeguarded through ongoing supervision by the study leader, Professor WJH Roestenburg. Both the researcher and study leader completed training on ethical research practices.

Participation in the study hold no direct benefits to respondents. Completion of the multi-choice questions is of short duration and will not take longer than 10 minutes to complete. Respondents are able to complete the questionnaire in their own time or at work. No significant costs will be incurred by participants to complete the on-line questionnaire, as such remuneration is not warranted. However, a lucky draw cash incentive of R500 was provided for one respondent.

Results from the study will be documented in article format and may be published in a journal relevant to the subject matter. The eight sampling organisation will be provided with an abbreviated copy of the final research report, prior to publishing. In addition, respondents can request a copy of the final report via e-mail to the researcher.

1.7 PROVISIONAL SECTION DEVISION

The mini-dissertation comprise of four sections in compliance with the article format selected. The first section discuss the research approach selected to address the research problem. In Section B, the FSW in the South African legal context is discussed, followed by an overview of available literature regarding the central concepts of *witness credibility* and *self-efficacy*. The researcher will argue that the cultivation of witness credibility and self-efficacy is essential to facilitate perceptions of integrity and evidence of verifiable value and thereby contribute to the efficacy of testimony presentation. Section C contain the journal article to be submitted for publishing in CARSA. In Section D, the researcher discusses the study limitations and recommendations for further research on the subject. Section E contain the annexures as supplementary to the relevant sections.

REFERENCES

Artz, L., Burton, P., Leoschut, L., Ward, C. L., & Lloyd, S. (2016). *Sexual abuse of children and adolescents in South Africa: Forms, extent and circumstances*.

Babbie, E. (2005). *The Basics of Social Research* (3rd ed.). Belmont: Wadsworth.

Bandura, A., & Adams, N. E. (1977). Analysis of Self-Efficacy Theory of Behavioral Change. *Cognitive Therapy and Research*, *1*(4), 287–310.

Barker, R. L., & Branson, D. M. (1999). *Forensic social work: Legal aspects of Professional Practice* (2nd ed.). Haworth Press.

Becker, D. (2016). Stan Brodsky and Tom Gutheil: On expert expert witnesses. Retrieved March 15, 2019, from https://blog.apabooks.org/2016/01/29/stan-brodsky-and-tom-gutheil-on-expert-expert-witnesses/

Blackwell, S., & Seymour, F. (2015). Expert Evidence and Jurors' Views on Expert Witnesses. *Psychiatry, Psychology and Law*, *22*(5), 673–681. https://doi.org/10.1080/13218719.2015.1063181

Boyle, J. A., Brodsky, S. L., Dautovich, N. D., & Gaskill, C. (2014). *Vocal Pitch Manipulation and Credibility in the Courtroom: Differences Between Male and Female Expert Witnesses*. The University of Alabama.

Boyle, J. A. N. N. (2014). *Vocal pitch manipulation and credibility in the courtroom: Differences between male and female expert witnesses*. The University of Alabama.

Brits, S. (2015). *Factors contributing to the conviction rates of child sexual abuse cases*. University of North West.

Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The Witness Credibility Scale: An Outcome Measure for Expert Witness Research. *Behavioral Sciences and the Law*, *28*(January), 892–907. https://doi.org/10.1002/bsl

Brodsky, S. L., & Pivovarova, E. (2016). *The Credibility of Witnesses*. *The Witness Stand*. New York. https://doi.org/10.1007/978-1-4939-2077-8

Brodsky, S. L., & Terrell, J. J. (2011). Testifying About Mitigation: When Social Workers and Other Mental Health Professionals Face Aggressive Cross-Examination. *Journal of Forensic Social Work*, *1*, 73–81.

Brodsky, S. L., & Wilson, J. K. (2016). Worst Expert Testimony Ever. *Psychological Injury and Law*, (June), 272–274. https://doi.org/10.1007/s12207-016-9261-7

Chlistunoff, M. (2016). Expert testimony and the quest for reliability : The Case for a methodology questionnaire. *Texas Law Review*, *94*(5), 1055–1078.

Cramer, R. J. (2009). *Witness Self-Efficacy: Development and Validation of the Construct*. University of Alabama.

Cramer, R. J., DeCoster, J., Harris, P. B., Fletcher, L. M., & Brodsky, S. L. (2011). A confidence-credibility model of expert witness persuasion: Mediating effects and implications for trial consultation. *Consulting Psychology Journal: Practice and Research*, *63*(2), 129–137. https://doi.org/10.1037/a0024591

Cramer, R. J., Decoster, J., Neal, T. M. S., & Brodsky, S. L. (2013). The Observed Witness Efficacy Scale : a measure of effective testimony skills. *Journal of Applied Social Psychology*, *43*, 1696–1703. https://doi.org/10.1111/jasp.12124

Cramer, R. J., Neal, T. M. S., Decoster, J., & Brodsky, S. L. (2010). Witness Self-Efficacy: Development and Validation of the Construct. *Behavioral Sciences and the Law*, *28*(August), 784–800. https://doi.org/10.1002/bsl

Cramer, R., Parrott, C. T., Gardner, B., Stroud, C., Boccaccini, M., & Griffin, M. (2014). An Exploratory Study of Meta-Factors of Expert Witness Persuasion. *Journal of Individual Differences*, *35*(1), 1–11.

Davis, G. G. (2017). Expert witness testimony : Overview and recommendations based on a professional experience. *Journal of Forensic Radiology and Imaging*, *8*(January), 9–12. https://doi.org/10.1016/j.jofri.2017.01.003

Dial, A. R., & Ellis, L. (2010). Building a believable case through credible witness testimony. *The Brief*, 33–38.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, Phone, Mail and Mixed-mode Surveys* (4th ed.). Hoboken: John Wiley & Sons, Inc.

Dlamini, B. (2016). *Call for comments on regulations relating to the registration of a speciality in forensic social work*. Pretoria: Government Gazette.

Dvoskin, J. A., & Guy, L. S. (2008). On Being an Expert Witness: It ' s not about you. *Psychiatry, Psychology and Law*, *15*(July), 202–212. https://doi.org/10.1080/13218710802014451

Fahmy, W., Snook, B., & McCardle, M. (2018). *Muslim Garments and Victim Credibility Assessment*. Memorial University of Newfoundland.

Ferreres, A. R. (2014). Ethical Issues of Expert Witness Testimony. *World Journal of Surgery*, *38*(May), 1644–1649. https://doi.org/10.1007/s00268-014-2641-9

Fischer, D. G., & Fick, C. (1993). Measuring Social Desirability: Short Forms of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurement*, *53*, 417–423.

Fouché, A., & Fouché, F. (2015). Requirements for evidence by a forensic social worker as set by the Supreme Court of Appeal. *South African Professional Society on the Abuse of Children*, *16*(2), 105–115.

Franklin, K. (2012). Bow Ties: The Simple Soluton to Expert Witness Credibility. Retrieved

September 15, 2018, from https://www.psychologytoday.com/intl/blog/witness/201206/bos-ties-the-simple-solution-expert-witness-credibility?amp

Fuchsberger, A. (2013). *The (Un)Credible Expert Witness: The Importance of Trustworthiness and Expertise in Expert Witness Testimony*. University of Kansas.

Geldenhuys, K. (2011, June). The role forensic social workers in the SAPS. *SA Media - The University of the Free State*, p. 38.

Greenberg, B., & Weiss, P. (2012). Validation of a Short Form of the Marlowe-Crowne for Use with Law Enforcement Personnel. *Journal Police Crim Psych*, *27*, 123–128.

Greeno, E. J., Bright, C. L., & Rozeff, L. (2013). Lessons from the courtroom: Perspectives from child welfare attorneys and supervisors. *Children and Youth Services Review*, *35*(9), 1618–1624. https://doi.org/10.1016/j.childyouth.2013.06.015

Grinnell, R. M. J., & Unrau, Y. A. (2011). *Social Work Research and Evaluation* (9th ed.). New York: Oxford University Press, Inc.

Grovers, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2009). *Survey Methodology* (2nd ed.). Hoboken: John Wiley & Sons, Inc.

Joubert, M., & van Wyk, C. (2014). Social work forensic reports in South African criminal courts: Inevitability in the quest for justice. *Social Work/Maatskaplike Werk*, *50(4)*(3), 485–503.

Klettke, B., Graesser, A. C., & Powell, M. B. (2010). Expert Testimony in Child Sexual Abuse Cases: The Effects of Evidence, Coherence and Credentials on Juror Decision Making. *Applied Cognitive Psychology*, *24*(March 2009), 481–494. https://doi.org/10.1002/acp

Larson, B. A., & Brodsky, S. L. (2014). Assertive Women as Expert Witnesses: A Study of Assertive and Defensive Responses in Male and Female Experts. *Behavioral Sciences and the Law*, *32*(April), 149–163. https://doi.org/10.1002/bsl

Lerm, H. (2015). Are expert witnesses unbiased? *Law Society of South Africa*.

Lywan, L., & Friedman, S. H. (2015). Testifying in a mock court: the experiences of forensic advanced trainees. *Australasian Psychiatry*, *23*(2), 177–180. https://doi.org/10.1177/1039856214568222

Malatji, H. Q. (2012). *The Social worker, as an expert witness in sexual offences committed against children*. North-West University.

Meintjies-Van der Walt, L. (2003). The proof of the pudding: The presentation and proof of expert evidence in South Africa. *Journal of African Law*, *47*, 88–106. https://doi.org/10.1017/S0021855303001998

Meintjies-Van der Walt, L. (2006). Expert evidence: Recommendations for future research. *Faculty of Law at Rodes University*, *3*, 276–302.

Morris, C. A. (2018). In Pursuit of Highly Credible Communication: What Nurses Need to Know Before They Testify. *The Journal of Legal Nurse Consulting*, *29*(3), 9–16.

Nagle, J. E., & Brodsky, S. L. (2012). Good Witnesses Don't Smile (Much). *The Jury Expert*, *24*(5), 18–20.

Nagle, J. E., Brodsky, S. L., & Weeter, K. (2014). Gender, Smiling, and Witness Credibility in Actual Trials. *Behavioral Sciences and the Law*, *32*(March), 195–206. https://doi.org/10.1002/bsl

Neal, T. M. S., Guadagno, R. E., Eno, C. A., & Brodsky, S. L. (2012). Warmth and Competence on the Witness Stand: Implications for the Credibility of Male and Female Expert Witnesses. *The Journal of the American Academy of Psychiatry and the Law*, *40*, 488–497.

Neal, TMS. (2009). Expert witness preparation: What does the literature tell us. *The Jury Expert*, *37*(4), 525–532. Retrieved from http://www.jaapl.org/content/37/4/525.short%0Ahttp://www.ncdsv.org/images/JuryExpert_EWPreparationWhatDoesTheLitTellUs_3-2009.pdf

O'Keefe, D. J. (2004). Trends and Prospects in Persuasion Theory and Research. In *Readings in persuasion, social influence and compliance gaining* (pp. 31–43). Boston: Pearson/Allyn and Bacon.

Parrott, C. T., Neal, T. M. S., Wilson, J. K., & Brodsky, S. L. (2015). Differences in Expert Witness Knowledge : Do Mock Jurors Notice and Does It Matter? *Publications of Affiliated Faculty: Nebraska Public Policy Center*, *43*(1), 69–81.

Rubin, A., & Babbie, E. (2016). *Essential research methods for social work* (4th ed.). Boston: Cengage Learning.

Sadan, M., Dikweni, L., & Cassiem, S. (2001). Pilot Assessment: The Sexual Offences Court in Wynberg & Cape Town and related services. *Idasa*, 1–59.

Schultz, L. (2014). *The Social Worker as an Expert Witness in Suspected Child Abuse Cases: a primer for beginners*. *Institute for Psychological Therapies*. Morgantown.

Shuman, D. W., & Greenberg, S. A. (2003). The expert witness, the adversary system, and the voice of reason: Reconciling impartiality and advocacy. *Professional Psychology: Research and Practice*, *34*(3), 219–224. https://doi.org/10.1037/0735-7028.34.3.219

Thomas, A. E. (2015). The bruised child ; making your evidence stand up in court. *Paediatrics and Child Health*, *25*(8), 387–391. https://doi.org/10.1016/j.paed.2015.03.002

Van de Mortel, T. F. (2008). Faking it: social desirability response bias in self-report research. *Australian Journal of Advanced Nursing*, *25*(4), 40–47.

Van der Merwe, K. (2015, June). The importance of developing expert witnesses within the SAPS. *Servamus*, pp. 74–75.

Van Westrhenen, N., Fritz, E., Vermeer, A., & Kleber, R. (2017). Reflections of social workers on working with abused children in South Africa. *South African Professional Society on the Abuse of Children*, *18*(1), 1–10.

Vaughan-Eden, V. (2008). Key Points to Testifying in Child Abuse Cases: Be Prepared, Be Proactive, and Be Professional. *APSAC Advisor*, 23–26.

Verardi, S., Dahourou, D., Ak-Kion, J., Bhowon, U., Ng Tseung, C., Amoussou-Yeye, D., … Rossier, J. (2010). Psychometric Properties of the Marlowe-Crowne Social Desirability Scale in Eight African Countried and Switzerland. *Journal of Cross-Cultural Psychology*, *41*(1), 19–34.

Walliman, N. (2005). *Your Research Project* (2nd ed.). London: SAGE Publications, Inc.

Wechsler, H. J., Kehn, A., Wise, R. A., & Cramer, R. J. (2015). Attorney beliefs concerning scientific evidence and expert witness credibility. *International Journal of Law and Psychiatry*, *41*, 58–66. https://doi.org/10.1016/j.ijlp.2015.03.008

Wilcox, A. M., & Nicdaeid, N. (2018). Jurors' perceptions of forensic science expert witnesses : Experience, qualifications, testimony style and credibility. *Forensic Science International*,

291, 100–108. https://doi.org/10.1016/j.forsciint.2018.07.030

Ziemke, M. H., & Brodsky, S. L. (2015). Unloading the hired gun : Inoculation effects in expert witness testimony. *International Journal of Law and Psychiatry*, *42–43*, 91–97. https://doi.org/10.1016/j.ijlp.2015.08.012

Zipse, D. W., & Mohla, D. C. (2014). Expert witnesses: The basics. *Record of Conference Papers - Annual Petroleum and Chemical Industry Conference*, 9–18. https://doi.org/10.1109/PCICon.2014.6961881

SECTION B: LITERATURE REVIEW

2.1 INTRODUCTION

Contained in section B are the findings following an in-depth literature review pertaining witness credibility, self-efficacy and the peripheral elements associated with effective expert witness testimony presentation. The purpose of the literature review was to gain insight into existing research on the main themes and particularly about witness credibility and self-efficacy and which research methods was utilised to investigate these abstract concepts. The literature review was also undertaken to assess the gaps in literature from a South African forensic social work perceptive and thereby identify the most pertinent discourses on the topic and to refine and define the research problem succinctly.

According to Minister Dlamini in the regulations relating to the registration of forensic social work as speciality, expert witness testimony is the main feature of forensic social work (Dlamini, 2016). To serve the court as an expert witness when child sexual abuse cases are tried is thus pivotal to the role, although all FSW's do not perform equally when on the witness stand. An important differentiation is to stipulate that *expert* in expert witness has reference to speciality knowledge pertaining a subject matter, and hence not implying that all professionals called to testify, are experts at presenting expert witness testimony.

Testimony beneficial to the court process presuppose the application of forensic social work knowledge, a conscientious investigation, critical analysis of the facts, and sound conclusions underpinned by scientific evidence documented in a well-reasoned report (Fouché & Fouché, 2015, Joubert & van Wyk, 2014) before the expert take the stand. Yet, the FSW may excel in the due diligence prior to testifying and once in the witness box, still fail to present oral evidence effectively. For example, the FSW may fear public speaking and excessive anxiety may cause the specialist to forget relevant facts and thereby appear to lack professional integrity when in fact this is not an accurate perception.

Testimony presentation according to Cramer (2009) is much like a stage appearance in a play presented to an audience who inevitable will assess the performance of the actor to make several determinations. In the legal context, testimony is considered efficacious when it is of adequate influence, thus convincing to the judiciary and of corroborating and confirmatory value (Brodsky, Griffin, & Cramer, 2010).

Research literature indicate a direct correlation between the influential extent of the information communicated and people who are seen to possess integrity, even though scholars cannot state exactly how this relationship is operationalized in practice (Brodsky et al., 2010). The underlying premise indicate that information communicated by people viewed to have a high degree of integrity have more influential power than people seen to have dubious integrity. In a legal context where facts are highly valued and required, integrity of the expert witness and the evidence presented are a central concern and by logic a necessity. Davis (2017), Joubert and van Wyk (2014) and Thomas (2015) along with Zipse and Mohla (2014) concur that evidence proffered in court must hold corroborating and verifiable value since the accuracy thereof will be tested by means of direct and cross-examination in court and should the evidence not conform to facts it will be useless to the trier of fact. Efficiency of witness testimony is determined from a judicial viewpoint and therefore the perceptions of integrity and credibility of the expert is at issue. Consequently, the perception of credibility has little bearing on whether or not the expert witness truly possess the character qualities of integrity or not.

Witness credibility is operationally defined and measured as a holistic impression of four latent dimensions; specifically, *knowledge*, *likeability*, *trustworthiness* and *confidence* although informative inferences can be drawn about the dimensions respectively as well (Brodsky et al., 2010). The former definition of witness credibility is accepted internationally as the conceptual framework to compare and contrast investigations into the capacity of witness credibility to forecast juror outcomes in jury trials. The underlying premise content that witnesses perceived with high degrees of expert knowledge, likeability, trustworthiness and confidence present with high overall witness credibility and thereby hold more influential power and are henceforth more effective on the witness stand, compared to witnesses with low perceived credibility (Brodsky et al., 2010).

Linz and Penrod (as cited in Fuchsberger, 2013) define credibility in the judicial context as a witness who possess accurate information transferred in an unprejudiced manner; as echoed by Brodsky and co-researchers (2010) who emphasize credibility can generally be understood as the probability that the witness is trustworthy and believable.

Greeno, Bright and Rozeff (2013) denote that expert witness testimony is a complicated task that according to Cramer and co-researchers (2014) draw on three dimensions of human behaviour including the intellect, the emotions and a personal conduct facet. Likewise, Geldenhuys (2011) stipulate that forensic social workers require specific skills in additional to subject knowledge to excel in the witness testimony role. As formerly stated, in the judicial context efficacy of testimony

is associated with perceptions of witness credibility as operationalised by perceptions of witness knowledge, likeability, trustworthiness and confidence so that the witness may be viewed as a person with accurate expert knowledge (Brodsky et al., 2010).

Juxtapose to witness credibility is the concept of *witness self-efficacy* and the power of testimony delivery skills related to witness demeanour (verbal and non-verbal) and presentation style to augment or undermine the efficacious value and perceived integrity of the expert witness. Cramer, Neal, Decoster and Brodsky (2010) define *witness self-efficacy* as the belief of the expert witness in their ability to testify successfully in court. The self-efficacy construct proposes two dimensions, being *poise* and *communication style.* The *poise* sub-factor as it relates to the witness role has reference to emotive expressions of the expert witness whilst on the stand, for example the anxiety experienced, fear, nervousness, excitement, anger, passion and to what extent the witness remain in control of his/her emotional faculties while testifying (Cramer et al., 2010).

Communication style represent the personal conduct abilities associated with verbal and non-verbal communication and include all the idiosyncratic mannerisms the audience will see as can be summarised by presentation skills (Cramer et al., 2010).

Analysis of the hypothetical undercurrents as proposed in *witness credibility* and *witness self-efficacy* as two standalone constructs to forecast efficacy of witness testimony, allude to theoretical overlap, as confirmed by Cramer and colleagues in 2014 (2014) and practical intersections of the two constructs that warrant the concepts juxtaposed in the current study and the overlaps clarified hereunder.

The testimony performance draw on the intellectual, emotive and personal conduct planes of human function to facilitate both witness credibility and self-efficacy on a practical level (Cramer, 2009). Both constructs respectively have proven the capacity to forecast the probable outcome of witness testimony (Cramer et al., 2014) and the most likely juror determinations to be expected following testimony (Cramer et al., 2010, Cramer et al., 2011). Witness self-efficacy have proven a significant forecaster of perceived witness credibility (Cramer et al., 2010, Cramer et al., 2011). The confidence sub-element of witness credibility is regarded a strong influential factor in perceptions of overall credibility and due to this aspect, scientists validate usefulness of the witness self-efficacy concept to predict credibility (Brodsky & Pivovarova, 2016, Cramer et al., 2010). Furthermore, *poise* and *communication style* as operationalised in witness self-efficacy have practical connotations with witness *confidence* (a witness who is self-assured, well-spoken, confident, poised and relaxed) along with the ability of self-efficacy to affect how trustworthy, knowledgeable and likeable a witness is perceived.

Conceptual overlap, the ability of the two central concepts to forecast efficacy of testimony and the probability that both constructs will influence the other; sufficient evidence exist to juxtapose the concepts in the current study so that an integrative understanding of witness efficacy within the forensic social work fraternity may be facilitated. No South African research concerning witness credibility or self-efficacy for expert witnesses nor for FSW's as expert witnesses could be sourced.

Aside from the requisite witness credibility and self-efficacy to facilitate effective witness testimony, it is argued that the circumstantial environment for the FSW constrain the cultivation of credibility and self-efficacy in certain respects. The researcher situates the credibility discourse in two contextual environments, being the South African milieu for FSW's and against this backdrop, the expert witness on the witness stand in the adversarial judicial setting. The subsequent sections discuss existing perceptions of expert witness testimony followed by a discussion on the *witness credibility* and *witness self-efficacy* concepts respectively.

2.2 THE REQUISITE WITNESS CREDIBILITY AND SELF-EFFICACY

2.2.1 Contextual environment of the FSW as expert witness in South Africa

Child sexual abuse is not unique to South Africa. Nevertheless, prevalence rates of child and adolescent sexual abuse in South Africa is very high and designated an "*epidemic*" (Artz, Burton, Leoschut, Ward, & Lloyd, 2016, p. 34). Hence, it can be stated that child sexual abuse is rampant, rife, widespread and extensive (Van Westrhenen et al., 2017) and according to Sadan and co-authors (2001), an extraordinary quantity of sexual offences against minors remain unreported and thus not reflected in prevalence statistics. According to Artz, Burton, Leoschut, Ward and Lloyd (2016), South Africa has been branded the global headquarter for rape.

High prevalence rates result in high child sexual abuse caseloads for the judiciary (Sadan et al., 2001) and in an attempt to deal with this challenge the first Sexual Offences Court (SOC) to adjudicate only sexual offences against woman and children was opened at Wynberg Magistrates Court in 1993, followed by subsequent SOC's in Cape Town, Parow and Paarl (Sadan et al., 2001).

In addition to the high caseloads experienced by the judiciary, the dynamics of child sexual abuse is such that allegations often cannot be corroborated by other physical or medical evidence apart from the testimony of the child complainant (Geldenhuys, 2011, Herman, 2010, Van Westrhenen et al., 2017). Shahida Poole, a senior state prosecutor relay the challenges in proving a child

sexual abuse case in court when eye witnesses, DNA or other corroborating evidence is absent (Huisman, 2018).

The lack of evidence and the child victim considered an undependable witness result in a weak case for the prosecution and consequently, as confirmed by Sadan and co-authors (2001) a large volume of child sexual abuse allegations are never given the time of day in the criminal court. Brits (2015) argue that very low conviction rates are achieved in South Africa for the child sexual abuse cases that do proceed to trial.

Hence, oral witness testimony lead by the investigating forensic social worker frequently constitute the central evidence of the legal case (Herman, 2010) and therefore the judiciary greatly rely on the expert witness to facilitate a fair adjudication of the issues before the court (Spellman & Tenney, 2010, Gabora, Spanos, & Joab, 1993; Kovera & Borgida, 1996; Mason, 1991; Morrison & Greene, 1992; Sagatun, 1991; Sales, Shuman, & O'Connor, 1994 as cited in Klettke, Graesser, & Powell, 2010).

As formerly stated, presentation of evidence as expert witness in court is the predominant function of the FSW (Dlamini, 2016, Geldenhuys, 2011). The purpose of expert witness testimony is to help judicial officials understand issues relevant to the case so that all the facts may be evaluated and hitherto ensure an accurate legal determination (Meintjies-Van der Walt, 2003).

Suitably so, the recently gazetted Regulations for the Forensic Practice Speciality delimit a FSW in the South African context as a social worker with:

a) *"scientific and specialised knowledge,*
b) *skills,*
c) *training,*
d) *education and*
e) *experience in forensic social work, who provides the court with*
f) *written and oral*
g) *impartial and*
h) *factual expert testimony*" (Dlamini, 2016, p. 6)

Implicit in the legal definition of a FSW is a person who hold accurate information communicated in an unbiased manner that qualify that person as a trustworthy and believable (credible) source of information regarding forensic social work matters. On the basis of the former legal determination alone can the forensic social work's testimony contribute to legal proceedings.

According to Davis (2017), Joubert and van Wyk (2014), Thomas (2015) and Zipse and Mohla (2014), an accurate legal determination is possible only when the witness is able to properly educate the court through simple explanation, conveying evidence in a logically reasoned manner, supported by a scientific basis of confirmatory vale the findings of a thorough forensic investigation. Meintjies-Van der Walt (2003) emphasize, the judiciary must be able to comprehend the evidence before it can be applied to the case and hence the expert witness must refrain from using technical gibberish and strive to educate instead of trivial efforts to dazzle the court with complicated terms.

Morris (2018, p. 10) and Dvoskin and Guy (2008) concur and recommend the expert witness think carefully about the perspective they wish to assume before taking the stand, and instructing a colleague about to testify *"just be yourself"* is not helpful at all. Unique contextual circumstances call for different personas to emerge, i.e. the mother identity brings forth different characteristics than the supervisor persona at work.

Assuming a humble perspective of an empathic social worker is more likely to draw on instinctive behaviours and bring qualities associated with patience, confidence, longsuffering and calmness to the fore. When speaking, the social worker will use vocabulary they would when talking to ordinary people and from this perspective can educate the judiciary patiently. Dial and Ellis (2010) and Dvoskin and Guy (2008) suggest that serious witness testimony mistakes predominantly occur from erroneous internal ambitions such as a win-lose paradigm, the need to feel important, to be praised or to impress, self-indulgence, to have the last word, to be right or underlying competiveness (Schultz, 2014).

To assume the role of a teacher and educate by conveying findings within the context of the adversarial judicial system appear a relatively straight forward task to accomplish. However, expert witness testimony is a complex (Greeno et al., 2013), multifaceted (Cramer et al., 2014) undertaking that demand additional skills over and above forensic social worker knowledge (Geldenhuys, 2011). What the expert witness says on the stand and how it is said affect the influential power and the corroborating value of the testimony, and by extension the credibility, self-efficacy and overall efficacy of the testimony presentation.

Forensic social work is distinct from non-specific social work as the primary client of the former is the court (Dlamini, 2016) in every case irrespective of who retain the services and by contrast, the unambiguous duty of the general social worker is to execute the mandate of the individual client or affiliate organisation.

The rules of engagement as established by common law decrees dictate to the expert witness in that the law of evidence require expert witness testimony to pass the hearsay evidence test to be regarded as evidence admissible in a court of law (Fouché & Fouché, 2015).

Expert witness testimony that fail to support professional opinions with scientific evidence constitute hearsay evidence, a case in point as postulated in Menday v Protea Assurance CO Ltd. 1976 (1) SA565 (EC) (Fouché & Fouché, 2015). Equally, as underscored by the Supreme Court of Appeal in De Sousa v The State 2014 (769/12) ZASCA 142, Judge JA Willis stressed the need for forensic social work conclusions to be supported by scientific evidence (Fouché & Fouché, 2015). Forensic social work conclusions with a scientific basis represent the watershed between testimony regarded as hearsay (inadmissible) and expert evidence (admissible). As a baseline prerequisite, expert witnesses must be guided by the stipulations regarding expert witness testimony in Holtzhauzen v Roodt (1997) (4) SA 766 (W) (Fouché & Fouché, 2015, Joubert & van Wyk, 2014).

As a fairly new practice speciality, the South African Council for Social Service Professions (SACSSP) is yet to formalise a code of ethics that delineate the responsibilities and duties of the FSW and their role as expert witness. The absence of an ethical code present particular challenges to the South African FSW. The legal definition of a FSW obligate the latter to render testimony that is impartial (Dlamini, 2016) and objective in the context of an adversarial system where two opposing parties are pitted against each other and one of the litigants are retaining the services of the FSW (Ferreres, 2014). In this complex relationship the expert witness must walk a fine line not to have professional determinations tainted by parties to the legal proceedings and hence the FSW is vulnerable to the potential blurring of ethical boundaries.

Ferrers (2014) and Meintjies-van der Walt (2006) agree that the potential susceptibility of the FSW to capitulate to unwarranted adversarial pressure and resultantly present with bias, knowingly or unknowingly in favour of one side is a real concern.

Likewise, due to oversights or errors made during the investigation process, in the written report, oral testimony that go wrong or parties displeased with the outcome of legal proceedings, FSW's are vulnerable to allegations and accusations of incompetence and unethical conduct and/or irreparable damage to their professional reputation as an expert in the field.

Deliberate unethical practice and misconduct on the part the FSW should attract consequences and scrutiny by the SACSSP. However, apart from the vulnerabilities associated with errors and the blurring of ethical boundaries are the threats to witness credibility and self-efficacy in how the

FSW deal with these accusations and allegations during cross-examination by an attorney who displays aggressive demeanour while on the witness stand. In the writers' view, failure to handle accusations and allegations skilfully during witness testimony may have equally devastating effects on overall credibility as actually being guilty thereof.

Undoubtedly, the stakes are high for the victim, the accused and the professionals involved in the case. Failure to present testimony with influential power of corroborating value in court can make the difference between protection, prosecution and professionalism. The question then arises; how can the FSW as expert witness in the South African context execute their duty to effectively educate the court and augment perceptions of witness credibility and self-efficacy or at the very least mitigate threats thereto?

International witness preparation scholars propose a concerted effort by expert witnesses to cultivate perceptions of witness knowledge, trustworthiness, confidence, likeability (witness credibility) and the improvement of testimony delivery skills as it relates to poise and communication style (witness self-efficacy) as requisite to facilitate testimony that have influential power of confirmatory value, which by extension will be an improvement to the efficacy of witness testimony in the psycho-legal context (Barker & Branson, 1999, Brodsky, Griffin, & Cramer, 2010; Brodsky & Pivovarova, 2016, Neal, 2009).

Herewith, Dvoskin and Guy (2008) agree that the perceived integrity of the expert witness represent their singular advantage and much like a balloon require only a needle prick to ruin it permanently.

2.2.2 On the witness stand: two opposing goals

The struggle on the witness stand can be understood as a battle for control between the goal-directed effort of the defence attorney to diminish the perceived credibility of the expert witness with a variety of tactics and the acquired skills and resolve of the former to preserve perceptions of witness credibility and self-efficacy.

The context of judicial proceedings is adversarial in nature and characterised by high conflict and hostility between opposing parties in the legal dispute. The judiciary is tasked with the testing of evidence through the practise of direct examination by the prosecuting attorney counterbalanced by robust cross examination by the defence attorney. According to Meintjies-Van der Walt (2003), cross examination in common law jurisdictions represent the sine qua non to authenticate the expert witness and the testimony presented, hence the judicial due process rely on skilful cross-

examination of the witness to uncover omissions, inconsistency, bias, dishonesty and fundamental flaws in the evidence or character of the professional.

The mandate of attorneys are to represent the best interests of their client vigorously and are thereby permitted latitude to zealously challenge the evidence presented. Thus, opposing council does not have to treat the expert witness nicely.

It is an obvious premise, and reiterated by Davis (2017) that attorneys arrive to court with a clear objective in mind and they pursue that goal during direct and cross-examination. Geldenhuys (2011), Schultz (2014) and Vaughan-Eden (2008) concur that the predominant aim of cross-examination is to weaken or ruin the credibility of the expert witness. To accomplish this objective, attorneys attend *"special trainings"* in the courtroom strategies used to attack witness credibility (Vaughan-Eden, 2008, p. 24).

Herewith, Zipse and Mohla (2014) concur and state that impeachment of the expert witness is the typical objective of opposing council during the cross-examination phase. Impeachment suggest that serious doubt is cast on the integrity or validity of the expert witness or evidence presented and once the attorney succeed to impeach the witness, it is regarded proof that the expert witness is not worthy of recognition. The attorney may argue impeachment when as a result of the oral testimony presented, the legal case of the retaining attorney was undermined or weakened (Zipse & Mohla, 2014).

Impeachment of the expert witness is regarded a negative outcome for the retaining attorney and the reputation of the expert. The overall credibility of the expert witness would have been reduced to zero, rendering the findings as presented of negligible corroborating value and useless to the court in adjudicating the case at bar. In addition, the professional reputation of the expert may be harmed should it become apparent in subsequent cases that the professional is not a credible source of accurate specialist knowledge.

Brodsky and Terrell (2011) opine that witness impeachment strategies often challenge the accuracy of the professional conclusions proffered, the comprehensiveness of the investigation i.e. whether all the important collateral sources was interviewed, the competency of the investigating professional, the scientific foundation on which conclusions are based and challenges to the impartiality of the expert witness in the case.

Yet, apart from the above areas to be targeted for impeachment attacks, the credibility of the expert witness hinge extensively on whether or not the professional can be believed and trusted

as a source of expert knowledge. Hence, emergent evidence that the expert witness lack integrity is difficult to recover from. Lack of witness integrity is evident when a witness exaggerate former experience (Schultz, 2014), embellish professional credentials (Vaughan-Eden, 2008), if the witness have a criminal record (Dial & Ellis, 2010), failure to interview important collateral sources (Schultz, 2014), not being familiar with child development theory (Schultz, 2014) and neglecting ongoing professional training. The former mentioned examples indicate that the expert witness is not trustworthy.

Morris (2018), Zipse and Mohla (2014) and Dial and Ellis (2010) opine another fatal threat to witnesses credibility are discrepancies detected and exposed by attorneys. Morris (2018) specify that discrepancies can occur either a) during testimony, i.e. saying you conducted a thorough investigation but failing to interview an important collateral source, b) between different experts, i.e. a secondary expert that contradict substantial conclusions made, c) longitudinally, i.e. documented actions taken during the investigation that you contradict during testimony and d) among different situations, i.e. discrepancies detected between what was said during a former sit down with attorneys and oral testimony in court.

On the witness stand, Davis (2017) orate that both the content of testimony and the character of the expert witness may form the target of attorney attacks to reduce witness credibility. In the 1st instance, forensic assessment conclusions will be challenged and should unsubstantiated conclusions be proffered, the witness is likely to aid opposing council to discredit their own credibility (Davis, 2017). By contrast, a conscientious FSW who present testimony based on sound scientific conclusions is more difficult to discredit. Assuming the testimonial evidence is well supported, the only option remaining to diminish witness credibility is to challenge the character of the expert witness (Davis, 2017).

The quality of expert witness testimony in the United States, according to Brodsky and Wilson (2016), generally range between acceptable to very good. Yet, Greeno, Bright and Rozeff (2013) researched the perspectives of child welfare supervisors and attorneys and found that social workers struggle to learn the courtroom skills they need to be effective in court. Unfortunately, comparative studies from a South African perspective could not be located. Apart from the notions of Brodsky and Wilson, more readily reported in literature are expert witnesses unfamiliar with the nuances of cross-examination who assist attorneys to diminish their own credibility on the witness stand.

For an expert witness to emerge from cross-examination with their credibility and self-efficacy intact, Morris (2018) recommend witnesses pay attention to listening properly, an often underrated

element of effective communication and according to Zipse and Mohla (2014), listening is a critical skill for witnesses to acquire. In fact, Morris (2018, p. 11) opine that effective witness testimony begin with listening that look like this*: "Listen. To. Every. Single. Word. Of. Every. Single. Question".* An expert witness that listen properly can differentiate between a question and a statement and the witness will be able to evaluate what information will address the heart of the question, which in turn will redirect the attention of the witness away from obsessing over whether they are answering the questions correctly or not (Morris, 2018). In addition, Zipse and Mohla (2014) indicate that attentive listening will allow for that brief pause needed before answering which retaining council require to object to the question.

As stated, most often reported in literature are the challenges experienced by witnesses during cross-examination. Barker and Branson (1999) along with Brodsky and Terrell (2011) argue that antagonistic cross-examination can be intimidating for expert witnesses to handle and often this go-to strategy is successful when the FSW respond in a defensive or otherwise problematic manner.

According to Davis (2017, p. 11) and Brodsky and Gutheil (Becker, 2016), the strategy referred to by the former authors is called the *"ad hominem attack"* whereby the cross-examining attorney pressurise the expert witness with a hostile, often sarcastic, condescending, and general antagonistic questioning style in order to elicit an angry, defensive or annoyed response from the expert witness. Once the witness takes the bait and offer an indignant response, the credibility and self-efficacy of the witness is diminished. Witness preparation scholars agree that witnesses should expect, even anticipate the inevitable *ad hominem* attack.

Brodsky and Wilson (2016) observed a particular testimony presentation whereby the attorney successfully aggravated the expert witness to the extent that the witness told the attorney to go and f..k himself. Loss of emotional composure on the witness stand can have severe implications for the credibility and the reputation of the testifying professional. Across studies, renowned scholars like Brodsky and Gutheil (Becker, 2016), Davis (2017), Morris (2018), Schultz (2014) and Vaughan-Eden (2008) are unanimous on this aspect; witnesses should never deviate from a calm and composed demeanour during testimony no matter what opposing council tempt the witness with.

Hitherto, Davis (2017) and Becker (2016) recommend the expert witness rebuff attorneys' bait by offering contrasting responses in return as a means to augment credibility; for example when the attorney speak louder, the witness speaks softer, attorney shouts, the witness is tranquil, the attorney mock the expert, the witness is serious, the attorney is condescending, the witness

responds politely. According to Becker (2016), the seasoned witness understand the animosity on display is not personal and really represent the perfect occasion to exemplify witness likeability.

In addition, a witness who does not take exception to this onslaught is more likely to stand firm and maintain a calm, controlled, professional and confident demeanour which according to Davis (2017) will fortify the credibility of the expert witness.

Expert witnesses qualified by the court to offer expert evidence can answer questions relating only to their area of expertise. Accordingly, Schultz (2014, p. 11) warn about the *"false security"* strategy used by attorneys as a decoy to lure the witness outside their area of expertise and this occur easily if not mindful of the questions posed. Davis (2017) explain; the attorney will commend the expert on their extensive knowledge about the case or subject matter and then line up a series of questions that entice the witness to answer questions that fall outside the purview of forensic practice. For example, the FSW may be asked questions pertaining the psychological functioning or diagnoses of a party involved in the case. Diagnoses fall within the ambit of psychology and psychiatry, hence social workers are not qualified to speculate in this area and any attempt to do so will be exploited by opposing council.

Consequently, Brodsky and Gutheil (Becker, 2016) argue that expert witnesses should acquire the ability to stipulate when they do not know the answer to a question. This response is purportedly suitable to shut down this strategy and is perfectly acceptable when the expert really do not know the answer to the question. Becker (2016) concur and found that jurors respect witnesses who are honest about limitations to their knowledge. Responding with 'I don't know' remind the judiciary that the witness is human after all and cannot be expected to know everything.

Likewise, Dvoskin and Guy (2008) along with Vaughan-Eden (2008) admonish witnesses to anticipate inducement to address legal issues that fall outside the range of forensic practice. This strategy is similar to the false-security trick in that ultimate legal decisions can only be addressed by the judiciary having considered all the material facts of the case. In practice this scenario occur when the attorney insist that the forensic social worker indicate whether the sexual abuse definitively occurred as alleged by the child complainant (Schultz, 2014). Brodsky and Terrell (2011) suggest the expert witness clearly separate their own assessment findings from the final legal determination about the allegations should the witness decide to offer an opinion to this question. Scholars seems to recommend a prudent response hitherto, like; *"such opinions are founded on analysis that involves social and moral policy in addition to clinical data and are therefore outside the prefecture of scientific inquiry"* (Dvoskin & Guy, 2008, p. 211).

In practice it is not unusual for the defence attorney to hire their own expert witness to evaluate the conclusions proffered by the investigating professional. Ostensibly, the second expert witness will be familiar with forensic practice matters and may be utilised by the attorney to expose findings and illuminate on perceived gaps in the investigation process. Ziemke and Brodsky (2015) analysed the impact of two expert witnesses and in some studies, two expert witnesses appeared to nullify each other by reducing the perceived credibility of both professionals, expert witnesses who testified for the same attorney frequently was viewed with suspicion and when two expert witnesses was present, jurors tried to interpret the motives of each expert witness' involvement in the case.

Regardless whether a second expert witness is present or not, accusations of witness bias or being a gun for hire based on financial motivations associated with payment for testimony is frequently used to score credibility points for the other side and hence the expert should prepare responses to the usual questions about payment beforehand (Brodsky and cited in Brodsky & Terrell, 2011). Implicit in the gun for hire accusations are that the expert's views are unreliable since the witness was paid to conclude findings and testify to facts that benefit a single party in the proceedings.

Obviously, as emphasized by Schultz (2014), the witness should never promote the cause of one party and Dvoskin and Guy (2008) recommend concerted steps to display the open mindedness with which the investigation and subsequent findings was concluded. The former writers believe that transparency of procedures are the best inoculation against bias accusations and the witness can shut down this line of questioning with the following response*; "I am paid for my time, not my testimony"* (Dvoskin & Guy, 2008, p. 207, Schultz, 2014, p. 11).

Brodsky argue that the *"push-pull"* method is effective when responding to questions about payment for testimony whereby the witness emphasize clear agreement with a question that is spot-on but posed in a disapproving manner, thereby placing the witness back in the power position in the struggle for control during cross-examination, for example:

"Q: So, Ma'am, you know the County is going to pay you $3000 or $4000 to give us an evaluation, so what have you done in that evaluation to get all that money, Ms.? (with Ms. pronounced mizzz).

A: I did a systematic evaluation of the life history of the defendant.

Q: (Looking intensely at the jury) So, you are getting 3 to 4 thousand dollars, isn't that correct?

A: Oh, ***yes*** *I surely hope so. That's correct."* (Brodsky as cited in Brodsky & Terrell, 2011, p. 76)

In an attempt by the attorney to maintain control of the questioning process, Dvoskin and Guy (2008) claim the witness may be forced to respond with ‘yes’ or ‘no’ to convoluted questions and when this occur it is wise to divide the question into two parts and respond accordingly. The aforementioned authors opine that detailed answers attract greater perceptions of credibility than one word answers.

Previously mentioned, the witness must at all costs maintain a calm demeanour and emotional control on the witness stand. The necessity hereof is highlighted by Cramer (2009) in articulating poise and communication style as essential testimony delivery skills required to facilitate witness self-efficacy since improper demeanour on the stand is equally likely to diminish credibility and thereby efficacy of witness testimony.

Barker and Branson (1999), Schultz (2014) along with Vaughan-Eden (2008) describe testimony delivery skills associated with a poor performance as excessive nervousness, a high pitched speaking tone or too softly, excessive hand gestures, the inability to explain concepts in simple language, fumbling through notes in search of important dates or data, appearing confused, giving irrelevant information, being tedious, not looking at the judge, poor eye contact, a slouching body posture and inappropriate courtroom attire.

Should a clear oversight or mistake be exposed, Brodsky and Gutheil (Becker, 2016, p. 3) argue that a *“core of solid feelings of professional worth”* should emerge and while it may be logical to retaliate when embarrassed, this response in the witness role will diminish witness credibility extensively. Schultz (2014) recommend a simple acknowledgement of the mistake in a calm and humble tone of voice as is echoed by Brodsky and Gutheil (Becker, 2016) who stipulate that effective witnesses fail at the task when assuming a defensive disposition. Nevertheless, Vaughan-Eden (2008) opine that witnesses should never assume something was omitted just because the attorney said so and instead should independently verify the facts quoted before the court.

2.2.3 Perceptions about expert witness testimony

Geldenhuys (2011) argue that witness testimony presentation is a complicated undertaking that demand testimony delivery skills in addition to specialist forensic practice knowledge. Yet, how forensic social workers feel about testifying, their ability to testify effectively and how their service to the court is perceived remain largely uncertain from a South African perspective. Few local studies elucidate on the perceptions of forensic social workers. However, Malatji does report that

forensic social workers experience court testimony as *"stressful"* (2012, p. 44) and cross-examination as *"frightening"* (2012, p. 35).

Dvoskin and Guy (2008), Greeno, Bright and Rozeff (2013) along with Morris (2018) report a tendency among international expert witnesses inclusive of nurses, social workers, psychologists and psychiatrists to experience difficulties in the courtroom. According to the former writers, the courtroom challenges experienced are associated with a variety of fears about the testimony performance itself that result in symptoms of moderate to severe anxiety and nervousness (Dvoskin & Guy, 2008, Greeno et al., 2013, Morris, 2018, Vaughan-Eden, 2008). Ordinarily, practitioners are in the power position when engaging with clients and the locus of control in the expert witness role is reversed, in favour of the judiciary the witness is duty bound to serve. Resultantly, the process of accountability type cross-examination can be a frightening experience for testifying professionals.

Edens and colleagues (2012), Wechsler, Kehn, Wise and Cramer (2015) report that legal practitioners harbour a somewhat negative inclination concerning the potential contribution of social scientists in the settlement of criminal and civil proceedings. Ziemke and Brodsky (2015) indicate that some judges and attorneys question the foundational reliability of social science. According to available literature, legal professionals have a distinct preference for cold and '*real'* scientific evidence such as medical forensic science and not social science that according to Wechsler and co-authors (2015) is regarded by some as nothing more than a hunch.

Ziemke and Brodsky (2015) further report that legal professional also do not trust the overall reliability of the social scientist that present the evidence. Legal professionals are suspicious about the inherent integrity of the expert witness and in particular whether the witness is a hired gun. Edens and colleagues (2012) describe a *hired gun* as an expert witness that is willing to adjust or modify their professional opinion when there is money to be gained from it with the acquired aim then to influence the judiciary in a particular direction on behalf of one of the parties to the dispute. The hired gun discourse in literature is a recurring theme that seem to emanate from expert witnesses who do succumb to adversarial pressure and the commonly used strategy of attorneys to discredit the witness with bias accusations on the other hand. Prejudiced testimony is unethical, illegal and not helpful to the trier of fact. Also, to be perceived as a biased expert witness is extremely detrimental to the reputation of the professional.

Given the confrontational nature of judicial proceedings and the propensity of attorneys to distrust the motivation of expert witnesses, it is understandable that forensic social workers reportedly experience witness testimony as fear provoking. According to Morris (2018) witnesses worry

about the questions the attorney will ask, if they will know the answers and if their professional or personal lives will be impacted should the testimony performance go wrong. Dvoskin and Guy (2008) report that witnesses dread the potential humiliation brought about by the unwarranted accusations for example being a gun for hire and criticism from a hostile attorney. Practitioners consider everything that could wrong on the witness stand and they are terrified of the consequences.

Greeno and colleagues (2013) argue that expert witnesses' own self-doubt and underlying fears may be the issue that undermine their ability to testify effectively in court. O'Keefe (2004) concur with Greeno and writers when referring to the *"perceived inability"* of the expert witness as the obstacle that impede the professional to succeed in the witness role (p. 33). Internal belief in the ability to testify successfully refer to *witness self-efficacy* and empirical research suggest that capabilities can be developed to moderate the fears associated with court testimony (Bandura & Adams, 1977, Greeno et al., 2013).

Cramer (2009) propose witnesses acquire and cultivate appropriate testimony delivery skills as conceptualised by *poise* and *communication style* in the witness self-efficacy concept. Witness self-efficacy is defined as the belief the witness have in their ability to testify effectively in court. Underpinned by self-efficacy theory as proposed by Bandura and Adams (1977), varying degrees of witness self-efficacy is able to forecast how well the witness is likely to perform on the stand and consequently witnesses with greater belief in their ability to testify well is more likely to be more effective witnesses (Cramer, 2009). Apart from the ability of witness self-efficacy to forecast testimony outcomes, it is hypothesized in the current study that witness self-efficacy is equally able to forecast how credible the witness is likely to be perceived. Thus, it is the expectation that greater belief in the ability to succeed should translate in greater witness self-efficacy and witness credibility.

2.3 THE WITNESS CREDIBILITY CONSTRUCT

2.3.1 Witness credibility as a sub-set of source credibility

Source credibility is a general concept that denote the larger context inclusive of various theoretical concepts that make inferences about task specific implications concerning credibility (Fuchsberger, 2013). Witness credibility is one aspect of source credibility that refer to the integrity of a context specific task in particular, being expert witness testimony.

Brodsky and co-researchers' (2010) work validate a positive association between people viewed as credible and the subsequent influential power of the message communicated by that person, although the researchers cannot determine exactly how integrity and influence is effected cognitively. Nevertheless, cognitive influence or the changing of one's mind occur by means of many variables and the credibility of the communicator is one such element that influence conviction.

Previously stated, witness credibility is defined in terms of witness knowledge, confidence, trustworthiness and likeability which holistically inform overall perceived credibility. In a non-task-specific sense credibility is associated with the quality of trust and the probability that a person can be believed to be sincere (Brodsky et al., 2010). Linz and Penrod (as cited in Fuchsberger, 2013) associate the credibility of witnesses with factual accuracy and the ability to communicate information in an objective way. Due to the greater influential power of people with higher degrees of perceived credibility, this area of research have proved fruitful to international witness preparation scholars (Buckley, 1989, Hurwitz, Miron and Johnson, 1992, McGinnes, 1973, Pornpitakpan, 2004 & Sternthal et al. 1973 as cited in Fuchsberger, 2013).

In the expert witness role, it is imperative to be perceived as a professional with accurate evidence and sufficient integrity to educate the court without prejudice. A court of law relies on factual, evidence based information that is supported by scientific data. The forensic social worker has a duty to educate the judiciary and this duty is well executed if testimony presentation is sufficiently influential and of corroborating value. Hence, witness credibility is a requirement for efficacy on the witness stand.

O'Keefe (2004) explain persuasion as the goal-directed endeavour to change or influence what a person think about a particular issue and therefore involves a successful change in outlook or attitude directed at a particular issue. Neal and Kovera (2015) report that efforts to understand how influence is effected date back to the publications of Chaiken and Petty in the 1980's. Chaiken and Petty proposed that people are influenced by two distinct ways of processing information received from the communicator.

It is argued that persuasion is facilitated via the "*central*" or the "*peripheral*" path whereby people acquire and process new information (Neal & Kovera, 2015, p. 5). The *central* path to persuasion occur by means of cognitive consideration of the value, quality or strength of the argument proffered and to facilitate this process the listener must remain engaged with the content, i.e. sufficient interest is required and the listener must be able to understand the information in order to evaluate the argument on its merits (Neal & Kovera, 2015). If follows therefore that a witness

who present testimony boringly, confuse the judiciary with the information or who cannot simplify complicated technical terms is likely to discourage persuasion via the central route since listener concentration is required for central path processing.

According to Boyle (2014), Fuchsberger (2013), Neal and Kovera (2015), O'Keefe (2004) and Wilcox along with Nicdaeid (2018) the central path to facilitate listener influence is preferred in legal settings due to the direct association of central path processing to the corroborating value of the arguments communicated.

The *peripheral* path that facilitate influence take a mental non-conscious bypass and the listener absorb information communicated by means of superficial idiosyncrasies, for example; non-verbal cues such as demeanour, eye contact, facial expression, hand gestures, vocal pitch and pace of speaking (Neal & Kovera, 2015). Boyle (2014) and Fuchsberger (2013) explain that influence via the peripheral pathway do not have any direct connotation to the corroborating value of the evidence presented during testimony.

However, Fuchsberger (2013) and Cramer's (2009) publications support the view that idiosyncratic behaviours of expert witnesses, although unrelated to the calibre of the evidence, can and do have an important consequence on the influential power of the testifying professional.

Consequently, expert witnesses should endeavour to deliver a testimony performance that succeed to retain the interest of the judiciary, that relay information that is comprehensible to ordinary people and thereby de-emphasize listener reliance on the superficial idiosyncratic behaviours inadvertently associated with presentation style and inherent personality traits. Researchers admonish witnesses not to underestimate the importance of the outlying (peripheral) elements that have the ability to influence the persuasiveness of information. Instead the utility of peripheral cues should be mobilized in order to supplement, reinforce and augment the overall efficacy of witness credibility and self-efficacy via persuasion.

2.3.2 Research findings related to witness credibility

International research material on the conceptualisation of witness credibility abound, predominantly from the United States where witness preparation scholars seek to educate witnesses on the elements that jury members associate with effective testimony. This is not the case locally as paucity in articles regarding perceptions of witness credibility and self-efficacy is observed. A review of available literature confirm that witness credibility is a multidimensional abstract concept whereby academics consider certain factors as more central to perceptions of

integrity than others. To a large extent from a literary perspective, discernments of witness credibility are defined through the eyes of the beholder although some general trends are observed.

According to Zipse and Mohla (2014), the idea behind witness testimony is for the expert to assist the court to understand the complicated aspects in the case about which the ordinary person do not have sufficient knowledge. To facilitate understanding, the expert witness should have the ability, as argued by Meintjies-Van der Walt (2003), to simplify complex terms and communicate this in an understandable manner. Jurs (2016) opine that the skill to translate complicated matters into uncomplicated words that educate the judiciary is the most important feature for an expert witness.

Davis (2017), Schultz (2014) and Zipse and Mohla (2014) agree that the court process benefit most from witness communication that uses simple words and steer clear of technical mumbo jumbo. Ostensibly, some expert witnesses may believe that it is important to create an impression of extensive knowledge and attempt to astonish the legal teams with their insights. However, Dvoskin and Guy (2008) regard the motivation to impress a grave error since the goal is to have the jury agree with the conclusions which are only attainable once they comprehend the underlying logic on which the evidence is based.

Knowledge *is* considered an important element in overall witness credibility and witnesses seen to be highly knowledgeable are viewed as more credible and have more influential power than witnesses who do not seem to have sufficient knowledge (Neal et al., as cited in Neal & Kovera, 2015). So while it is important to appear knowledgeable, the *manner* of communication in how the knowledge is translated through understandable means is at issue for jurors. In describing the need for witness communication to be presented in understandable terms, Wilcox and Nicdaeid (2018, p. 105) use the word *"accessible"* and hereby imply that evidence should be sufficiently straight forward so that it may be *accessible* to the judiciary.

Additionally, Wilcox and co-writer (2018) found that witness testimony should be appealing in a manner that capture and retain the interest of the audience sufficiently in order to remain focused on the context thereof. Cooper and Neuhaus analysed two testimony conditions whereby one used extremely complex language and the other simple language. In the simple language situation, jurors were able to comprehend the evidence and were not impacted by outlying issues such as witness payment, whereas in the complex testimony situation the jurors did not understand the information and resultantly the persuasive power of testimony was reliant on

outlying issues, like the payment for testimony (Cooper & Neuhaus as cited in Neal & Kovera, 2015).

Barker and Branson (1999) along with Morris (2018) suggest the expert witness assume the appropriate perspective to increase the likelihood of effective testimony. The former authors recommend the perspective of a teacher who patiently explain questions and listen attentively to every word of every question prior to responding (Barker & Branson, 1999, Morris, 2018). Franklin (2012) however, suggest a humble disposition and recognition that witness testimony resemble only one piece of the evidence just like a *"maggot on a dead body"* (p. 2).

Across studies, researchers are unanimous on the prominence of trustworthiness in perceptions of witness credibility and this theme emerge as a significant consideration of inherent integrity. Ziemke and Brodsky, (2015), Wechsler et al., (2015) and Zipse and Mohla (2014) regard trustworthiness as the central element in credibility determinations. By logic an expert witness must be truthful and Dvoskin and Guy (2008) define trustworthiness as the degree of faith the judiciary have in the witness, their personal character and the evidence they present. As such, a witness who is dishonest, prejudiced or found to omit data cannot be trusted. Melton and co-researchers (as cited in Ziemke and Brodsky 2015) describe trustworthiness in terms of apparent honesty pertaining the witness. According to Shuman and Greenberg (2003), the foundation of witness credibility is the absence of prejudice, inextricably associated with whether or not the professional can be trusted in the witness role. Witness preparation specialists, Ziemke and Brodsky (2015) stress the importance of trustworthiness, regarded as indispensable and a baseline requirement since all evidence communicated to the court will be of zero corroborative value if the witness is deemed unreliable. In a study with manipulated trustworthy conditions, Fuchsberger (2013) empirically validated the strength of trustworthiness to affect overall witness credibility and finally concluded that trustworthiness is so significant that a separate measurement instrument should be utilised to assess this dimension independently from knowledge, likeability and confidence.

Credibility literature recognise the importance of witness demeanour and the idiosyncratic mannerisms associated with verbal and non-verbal communication during the testimony performance to influence perceptions of witness credibility. The work of Cramer (2009) attest to the power of testimony delivery skills associated with poise and communication style to influence perceptions of credibility. Likewise, Morrison, Porter and Fraser (2007) explain that every aspect visible to the audience, thereby referring to; clothing, attitude, facial expressions, gestures, voice pitch, pace of speech, nervousness, posture, breathing and perspiration all represent

characteristics and actions that inform determinations of witness credibility. As formerly stated, when the audience loose interest in the content of testimony, influence tend to be facilitated through reliance on the outlying factors associated with demeanour as opposed to the central pathway which bears association to the value of the evidence presented (Neal & Kovera, 2015).

Fahmy and co-researchers (2018) investigated the impact of wearing a niqab and hijab on witness credibility and found that victims who did wear a head scarf rated as more credible than victims without a head covering. Nagle and Brodsky (2012) discovered a positive correlation between smiling at appropriate times and higher ratings of likeability. Boyle (2014) analysed the influence of vocal pitch on credibility ratings and concluded a clear preference for a lower pitched voice during testimony.

Witness confidence is considered an important element of demeanour and forecasting factor in perceptions of witness credibility and self-efficacy. According to Dial and Ellis (2010) and Spellman and Tenney (2010) emotional composure on the witness stand is a crucial component of demeanour and confidence is considered a mediator for witness anxiety, fear and nervousness. Due to the positive association between confidence, witness credibility and the subsequent influential power of the testimony, Cramer, DeCoster, Harris, Fletcher and Brodsky (2011) investigated a confidence-credibility model and determined that confidence do mediate credibility with a preference for moderate witness confidence to maximize credibility perceptions. Larson and Brodsky (2014) considered defensive and assertive answering styles and established that assertive responses produced the highest ratings for witness credibility, likeability and professionalism.

Larson and Brodsky (2010) compared the impact of invasive type cross-examination questions on males versus females and found that invasive questioning affected females more adversely than males and resultantly females was appraised as less confident, dependable, likeable and presumably had less perceived integrity. Daftary-Kapur, O'Connor and Mechanic (2014) studied testimony valence and the potential prejudice of gender associated with the expert witness and validated the findings by Larson and Brodsky as the 2014 study confirmed that female witnesses were asked more invasive questions and perceived as less credible than their male counterparts. However, in the findings produced by Neal and colleagues (2012), gender of the expert witness became a factor only when the witness rated low in both likeability and knowledge, yet when gender mattered, the males were viewed more favourably.

According to Brodsky and Wilson (2016), Wachtel (2017) and Greeno and colleagues (2013), a credible expert witness is one who arrives to court well organised, ready to assume their duty with

a full understanding of the role in context of the adversarial process. Contrastingly, Blackwell and Seymour (2015) surveyed jurors in criminal trials of sexual offences against children and they regard a credible witness as one with applicable specialised experience.

2.3.3 Witness credibility – a four factor model

In 2010, Brodsky, Griffin and Cramer set about the development of a conceptual framework to define, evaluate and measure the construct baptised as *witness credibility*. The process of exploratory factor analysis produced four latent variables that comprise the construct, specifically; "*knowledge*, *trustworthiness*, *confidence* and *likeability"* (Brodsky et al., 2010, p. 898). Witness credibility in terms of these four distinct elements have been recognised by the International witness preparation fraternity as the benchmark to objectively measure perceptions of witness credibility. Subsequent research studies by Brodsky and Terrell (2011), Cramer, DeCoster, Harris, Fletcher and Brodsky (2011), Larson and Brodsky (2014), Wilcox and Nicdaeid (2018), Neal, Guadagno, Eno, and Brodsky, (2012) and Parrott, Neal, Wilson and Brodsky (2015) validate the utility and accuracy of the concept in terms of the four peripheral factors.

The four-model concept have been subjected to analyses of the four dimensions under experimental conditions with interesting results. Cramer, DeCoster, Harris, Fletcher and Brodsky (2011) manipulated degrees of confidence as expressed by the expert witness during testimony presentation and concluded that moderate witness confidence produce the maximum perceptions of credibility and influential power, although appropriate confidence levels may be case specific. Similarly, Parrott, Neal, Wilson and Brodsky (2015) manipulated knowledge levels in mock trails concluding that knowledge variation affected only the perceived likeability of the witness in that low knowledge witnesses was strangely more likeable. The study by Neal, Guadagno, Eno and Brodsky (2012) found that witnesses perceived as likeable and knowledge simultaneously, presented with high witness credibility, yet when these dimensions dwindled, males was regarded as more credible than females.

The study by Fuchsberger contrasted the trustworthiness and knowledge dimensions with resultant noteworthy results. Fuchsberger (2013) report that trustworthiness was the only dimension with the ability to significantly reduce overall witness credibility and since trustworthiness operate autonomously from the other three dimensions, it is seems the most important element of the witness credibility construct.

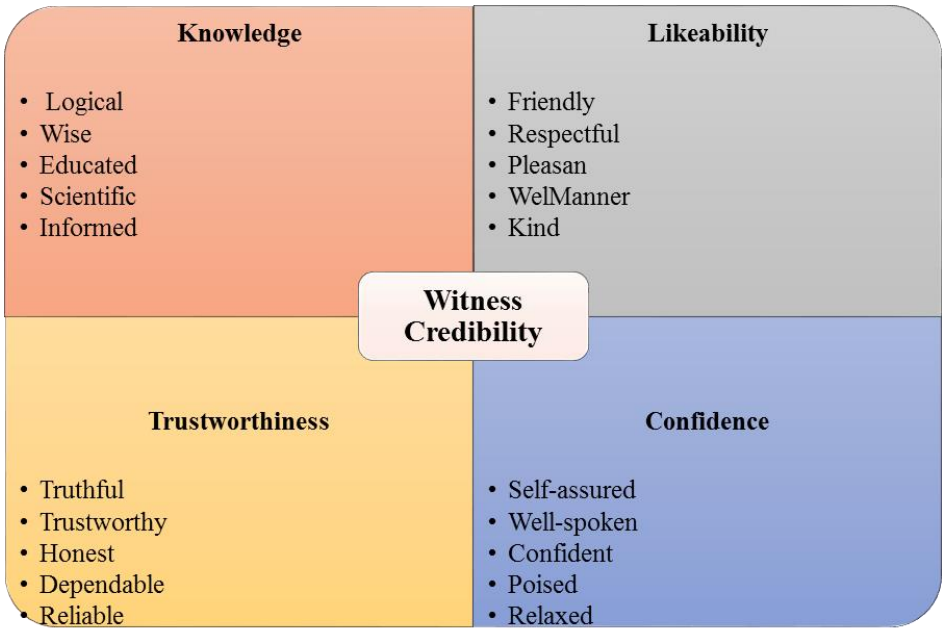

Figure 3: Witness credibility construct

Figure 3 represent the conceptualisation of *witness credibility* with the attributes as postulated by Brodsky and co-researchers (Brodsky & Pivovarova, 2016). The four factors independently and conjointly seem to predict perceptions of witness credibility. According to Brodsky and Terrell (2011) knowledge is central to forensic practice corroborative matters, trustworthiness convey inherent perceptions of integrity and honesty, confidence is credible if not arrogant and affable experts are generally perceived as more credible.

2.4 THE WITNESS SELF-EFFICACY CONSTRUCT

2.4.1 Witness self-efficacy as a subset of general self-efficacy

Witness self-efficacy is defined as the belief of the expert witness to testify effectively in court (Cramer et al., 2010). Witness self-efficacy refer to a context specific area to which self-efficacy theory is applied and witness self-efficacy form part of the broader self-efficacy theory. Bandura and Adams (1977) developed self-efficacy philosophy and proposed that the degree of personal self-efficacy about a given undertaking forecast the results likely to transpire. According to Bandura and co-worker (1977), the extent of personal self-efficacy predict potential results and inform the type, context, duration and amount of effort the individual invest in personal activities and likewise, persons who tend to persevere in challenging tasks are more likely to overcome their fears whilst persons who avoid uncomfortable situations perpetuate the inability to succeed.

Bandura and Adams opine that self-efficacy mitigate anxiety and fears and thus self-efficacy improve the capacity of individuals to deal with challenging circumstances, hence expectations held about the ability to succeed can predict with some certainty the potential results that can be anticipated for a particular undertaking (Bandura & Adams, 1977, Cramer, 2009).

Self-efficacy theory originated from the perspective of social and educational milieus and due to the similarities between the former contexts and witness testimony which is equally dramatized with a teaching element, Cramer, Neal, DeCoster and Brodsky (2010) applied Bandura's theories to the testifying role, as such the construct witness self-efficacy emerged. Cramer, DeCoster, Harris, Fletcher and Brodsky (2011) along with Neal (2010) since empirically validated witness self-efficacy a significant forecasting factor for results to be expected from witnesses as well as perceptions of witness credibility.

2.4.2 Research findings related to witness self-efficacy

Witness self-efficacy is a fairly new construct as operationalised in terms of the two dimensions (poise and communication style) as proposed by developers and hence literature on the concept is restricted. Notwithstanding, the association of *confidence* with *witness self-efficacy* and *witness credibility* is considered significant in regards the causal positive relationship to the influential power of testimony.

According to Brodsky and co-researchers (2010), the *confidence* dimension in the four factor credibility model is a significant forecasting variable for perceptions of witness credibility. Ostensibly, it is likely that witness self-efficacy also have predictive capacity in regards to overall witness credibility, as argued hitherto by Cramer (2009). Due to the irrefutable positive correlation between confidence, credibility and the predictive capacity thereof, a confidence-credibility model was investigated and found that credibility mediate confidence variations and juror verdicts (Cramer et al., 2011).

In 2014, Cramer, Parrott, Gardner, Stroud, Boccaccini and Griffin (2014) combined the witness self-efficacy concept with the Five-Factor personality model and the WCS in a study that sought to identify meta-factors in an effort to clarify the mechanisms that facilitate expert witness influence and consequently two factors emerged, *efficacy* and *character*.

Although a fairly new concept, research findings to date illustrate that witness self-efficacy is indispensable when appraising an expert witness and due to the utility of the WSES to explore

this abstract concept, to evaluate the degree of witness self-efficacy and the ability thereof to forecast witness credibility, inclusion of this construct was necessary in the current study.

2.4.3 Witness self-efficacy – a two factor model

Formerly stated, *witness self-efficacy* refer to the expert's personal confidence in their ability to testify clearly and effectively in court and furthermore, the developer acknowledge that the inherent beliefs about the ability to succeed comprise of the interrelated workings of the human intellect, feelings and personal conduct of the expert witness during testimony presentation (Cramer, 2009). Thus, self-efficacy of the expert witness is meant to be interpreted as a comprehensive unitary concept. Development of the concept support the presence of two latent variables that predict witness self-efficacy, specifically *poise* and *communication style*, operationalised as depicted in figure 4 (Cramer et al., 2010).

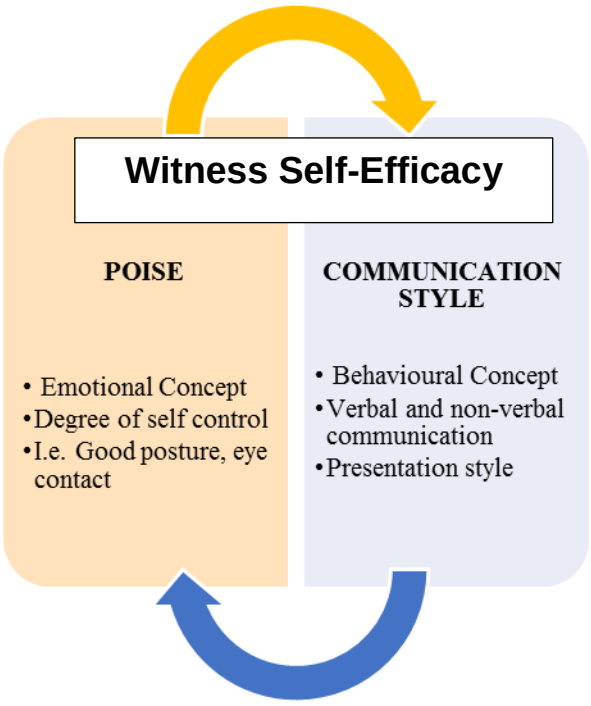

Figure 4: Witness self-efficacy construct

Poise, as a variable in witness self-efficacy refer to the extent that the expert witness is able to regulate emotional affect during the testimony presentation and by definition poise refer to an emotional concept (Cramer et al., 2010). Emotional expressions such as anxiety, fear, calmness, nervousness, passion, excitement and regulation of these and similar feelings reflect the extent that the expert witness present with the necessary confidence to excel in the witness role and present effectual testimony. *Communication style* include the intellectual and personal conduct

facets associated with the verbal and non-verbal testimony delivery skills required during the testimony performance (Cramer et al., 2010).

2.5 CONCLUSION

The former discussion highlight the need for expert witnesses to be perceived as persons with integrity who present testimony in a clear concise manner and a sufficient degree of confidence in order to facilitate influential and effective testimony. The two main constructs, witness credibility and self-efficacy, intersect on a theoretical and practical level and thus require simultaneous analysis of both constructs to develop a holistic understanding of effectual testimony as seen through the eyes of a South African forensic social worker.

In the South African context, FSW's are relied upon extensively to educate the judiciary and thereby assist with the fair adjudication of child sexual abuse cases (Gabora, Spanos & Joab, 1993; Kovera & Borgida, 1996; Mason, 1991; Morrison & Greene, 1992; Sagatun, 1991; Sales, Shuman, & O'Conner, 1994 as cited in Klettke et al., 2010). Within the adversarial and legal context, the credibility of the evidence and character of the FSW often become the central theme, especially in the absence of other corroborating evidence. Presently, a code of ethics that offer clear guidelines to the testifying forensic practitioner have not been formulated and consequently, the FSW is vulnerable to the blurring of ethical boundaries and allegations of unethical conduct.

On the witness stand the veracity of expert witness and evidence is tested when the practitioner face cross-examination and at this juncture it is critical to handle accusations and allegations skilfully to protect and maintain perceptions of credibility and self-efficacy. The stakes are high for all the professionals and the litigants involved in the legal dispute. Failure to deliver effectual testimony may negatively affect the reputation of the professional and result in a limited overall contribution to the legal proceedings. For example, a FSW may have conducted a thorough forensic investigation and present a well-reasoned report, but a long standing fear of public speaking cause testimony to go awry and thereby undermine credibility of the evidence.

Clearly, the FSW should endeavour to implement measures that mediate threats to credibility and self-efficacy when testifying and thereby tip the scale that impede witness efficacy in favour of the professional.

In considering the two main constructs of this research study, a body of International literature, primarily from the United States exploring both concepts were found that address expert witness preparation needs for forensic psychologists. The field of expert witness preparation appear to be

booming abroad as the jury system and availability of jurors seem to encourage interesting studies.

This is not the case locally as paucity in articles regarding witness credibility and self-efficacy is observed in local literature. The limited quantity of local research found primarily address the legal requirements of expert witnesses in terms of their duties and responsibilities to the court and a select few researchers attest to the need for additional courtroom training to equip forensic social workers for witness testimony (Geldenhuys, 2011, Malatji, 2012). No indigenous research concerning witness credibility, self-efficacy or any connection between the two concepts and South African expert witnesses could be sourced.

Hence, researchers know very little about how credible and confident FSW's in the South African context perceive themselves to be as expert witness in the criminal courts. The extent that knowledge, trustworthiness, confidence and likeability is communicated to the judiciary during testimony is therefore uncertain. Likewise, the impact of experience, further education or work context on perceptions of aptitude among FSW's is unknown.

What *is* known; social scientists are not enthusiastic about the expert witness role and seem to struggle with accountability type cross-examination and find the experience fear provoking. Former research also indicates that success in the witness role demand specialised expertise to attain and maintain credibility and self-efficacy. Credibility and self-efficacy is the central theme associated with the primary task of witness testimony and therefore one of the most important considerations in FSW matters.

Indigenous research is needed to develop an understanding of the perceptions of credibility and self-efficacy held by FSW's and to investigate variables that influence these perceptions to address the gaps in literature from a South African forensic social work perspective. Variables that enhance or diminish witness credibility should be of concern to FSW's who seek to render services in a professional, ethical and effective manner.

Considering the death of locally generated knowledge regarding witness credibility and self-efficacy and how these constructs correlate with identified variables in this study may contribute to a local understanding and knowledge base of expert witnessing and forensic social work in South Africa. Potentially, results from this study may illuminate on the credibility elements that FSW's have mastered and those that require further development to excel in the witness role.

Insight into perceptions held by FSW's can inform strategies to improve expertise as suggested by Lywan and Friedman (2015) who found that mock court training improved the courtroom confidence of forensic trainees.

Furthermore, the study may indicate whether self-efficacy correlate positively with credibility, in which case the acquisition or improvement of testimony delivery skills may be encouraged to improve overall witness credibility.

Validation of the WCS and WSES in the South African context could provide utility of the instruments as self-preparation tools prior to testifying. Lastly, the study may contribute to the discourse on the requirements of expert witness testimony that assist the judiciary to reach fair conclusions.

2.6 REFERENCES

Artz, L., Burton, P., Leoschut, L., Ward, C. L., & Lloyd, S. (2016). *Sexual abuse of children and adolescents in South Africa: Forms, extent and circumstances*.

Bandura, A., & Adams, N. E. (1977). Analysis of Self-Efficacy Theory of Behavioral Change. *Cognitive Therapy and Research*, *1*(4), 287–310.

Barker, R. L., & Branson, D. M. (1999). *Forensic social work: Legal aspects of Professional Practice* (2nd ed.). Haworth Press.

Becker, D. (2016). Stan Brodsky and Tom Gutheil: On expert expert witnesses. Retrieved March 15, 2019, from https://blog.apabooks.org/2016/01/29/stan-brodsky-and-tom-gutheil-on-expert-expert-witnesses/

Blackwell, S., & Seymour, F. (2015). Expert Evidence and Jurors' Views on Expert Witnesses. *Psychiatry, Psychology and Law*, *22*(5), 673–681. https://doi.org/10.1080/13218719.2015.1063181

Boyle, J. A. N. N. (2014). *Vocal pitch manipulation and credibility in the courtroom: Differences between male and female expert witnesses*. The University of Alabama.

Brits, S. (2015). *Factors contributing to the conviction rates of child sexual abuse cases*. University of North West.

Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The Witness Credibility Scale: An Outcome

Measure for Expert Witness Research. *Behavioral Sciences and the Law*, *28*(January), 892–907. https://doi.org/10.1002/bsl

Brodsky, S. L., & Pivovarova, E. (2016). *The Credibility of Witnesses*. *The Witness Stand*. New York. https://doi.org/10.1007/978-1-4939-2077-8

Brodsky, S. L., & Terrell, J. J. (2011). Testifying About Mitigation: When Social Workers and Other Mental Health Professionals Face Aggressive Cross-Examination. *Journal of Forensic Social Work*, *1*, 73–81.

Brodsky, S. L., & Wilson, J. K. (2016). Worst Expert Testimony Ever. *Psychological Injury and Law*, (June), 272–274. https://doi.org/10.1007/s12207-016-9261-7

Cramer, R. J. (2009). *Witness Self-Efficacy: Development and Validation of the Construct*. University of Alabama.

Cramer, R. J., DeCoster, J., Harris, P. B., Fletcher, L. M., & Brodsky, S. L. (2011). A confidence-credibility model of expert witness persuasion: Mediating effects and implications for trial consultation. *Consulting Psychology Journal: Practice and Research*, *63*(2), 129–137. https://doi.org/10.1037/a0024591

Cramer, R. J., Neal, T. M. S., Decoster, J., & Brodsky, S. L. (2010). Witness Self-Efficacy: Development and Validation of the Construct. *Behavioral Sciences and the Law*, *28*(August), 784–800. https://doi.org/10.1002/bsl

Cramer, R., Parrott, C. T., Gardner, B., Stroud, C., Boccaccini, M., & Griffin, M. (2014). An Exploratory Study of Meta-Factors of Expert Witness Persuasion. *Journal of Individual Differences*, *35*(1), 1–11.

Daftary-Kapur, T., O'Connor, M., & Mechanic, M. (2014). Gender-Intrusive Questioning : A Survey of Expert Witnesses. *Behavioral Sciences and the Law*, *32*, 180–194. https://doi.org/10.1002/bsl

Davis, G. G. (2017). Expert witness testimony : Overview and recommendations based on a professional experience. *Journal of Forensic Radiology and Imaging*, *8*(January), 9–12. https://doi.org/10.1016/j.jofri.2017.01.003

Dial, A. R., & Ellis, L. (2010). Building a believable case through credible witness testimony. *The Brief*, 33–38.

Dillman, D. A., Smyth, J. D., & Christian, L. M. (2014). *Internet, Phone, Mail and Mixed-mode Surveys* (4th ed.). Hoboken: John Wiley & Sons, Inc.

Dlamini, B. (2016). *Call for comments on regulations relating to the registration of a speciality in forensic social work*. Pretoria: Government Gazette.

Dvoskin, J. A., & Guy, L. S. (2008). On Being an Expert Witness: It ' s not about you. *Psychiatry, Psychology and Law*, *15*(July), 202–212. https://doi.org/10.1080/13218710802014451

Fahmy, W., Snook, B., & McCardle, M. (2018). *Muslim Garments and Victim Credibility Assessment*. Memorial University of Newfoundland.

Ferreres, A. R. (2014). Ethical Issues of Expert Witness Testimony. *World Journal of Surgery*, *38*(May), 1644–1649. https://doi.org/10.1007/s00268-014-2641-9

Fouché, A., & Fouché, F. (2015). Requirements for evidence by a forensic social worker as set by the Supreme Court of Appeal. *South African Professional Society on the Abuse of Children*, *16*(2), 105–115.

Franklin, K. (2012). Bow Ties: The Simple Soluton to Expert Witness Credibility. Retrieved September 15, 2018, from https://www.psychologytoday.com/intl/blog/witness/201206/bos-ties-the-simple-solution-expert-witness-credibility?amp

Fuchsberger, A. (2013). *The (Un)Credible Expert Witness: The Importance of Trustworthiness and Expertise in Expert Witness Testimony*. University of Kansas.

Geldenhuys, K. (2011, June). The role forensic social workers in the SAPS. *SA Media - The University of the Free State*, p. 38.

Greeno, E. J., Bright, C. L., & Rozeff, L. (2013). Lessons from the courtroom: Perspectives from child welfare attorneys and supervisors. *Children and Youth Services Review*, *35*(9), 1618–1624. https://doi.org/10.1016/j.childyouth.2013.06.015

Herman, S. (2010). The Role of Corroborative Evidence in Child Sexual Abuse Evaluations, *212*(July), 189–212.

Huisman, B. (2018, November 26). SA's first sex offences court. *City Press*, pp. 1–2. Retrieved from https://city-press.news24.com/News/sas-first-sex-offences-court-20181124

Joubert, M., & van Wyk, C. (2014). Social work forensic reports in South African criminal courts: Inevitability in the quest for justice. *Social Work/Maatskaplike Werk*, *50(4)*(3), 485–503.

Jurs, A. W. (2016). Expert Prevalence , Persuasion and Price : What Trial Participants Really Think About Experts. *Indiana Law Journal*, *91*(2), 352–391.

Klettke, B., Graesser, A. C., & Powell, M. B. (2010). Expert Testimony in Child Sexual Abuse Cases: The Effects of Evidence, Coherence and Credentials on Juror Decision Making. *Applied Cognitive Psychology*, *24*(March 2009), 481–494. https://doi.org/10.1002/acp

Larson, B. A., & Brodsky, S. L. (2010). When Cross-Examination Offends: How Men and Women Assess Intrusive Questioning of Male and Female Expert Witnesses. *Journal of Applied Social Psychology*, *40*(4), 811–830.

Larson, B. A., & Brodsky, S. L. (2014). Assertive Women as Expert Witnesses: A Study of Assertive and Defensive Responses in Male and Female Experts. *Behavioral Sciences and the Law*, *32*(April), 149–163. https://doi.org/10.1002/bsl

Lywan, L., & Friedman, S. H. (2015). Testifying in a mock court: the experiences of forensic advanced trainees. *Australasian Psychiatry*, *23*(2), 177–180. https://doi.org/10.1177/1039856214568222

Malatji, H. Q. (2012). *The Social worker, as an expert witness in sexual offences committed against children*. North-West University.

Meintjies-Van der Walt, L. (2003). The proof of the pudding: The presentation and proof of expert evidence in South Africa. *Journal of African Law*, *47*, 88–106. https://doi.org/10.1017/S0221855303001998

Meintjies-Van der Walt, L. (2006). Expert evidence: Recommendations for future research. *Faculty of Law at Rodes University*, *3*, 276–302.

Morris, C. A. (2018). In Pursuit of Highly Credible Communication: What Nurses Need to Know Before They Testify. *The Journal of Legal Nurse Consulting*, *29*(3), 9–16.

Morrison, B. R., Porter, L. L., & Fraser, I. H. (2007). The Role of Demeanour in Assessing the Credibility of Witnesses. *The Avocates' Quarterly*, *33*, 170–192.

Nagle, J. E., & Brodsky, S. L. (2012). Good Witnesses Don't Smile (Much). *The Jury Expert*, *24*(5),

18–20.

Neal, T. M. S., Guadagno, R. E., Eno, C. A., & Brodsky, S. L. (2012). Warmth and Competence on the Witness Stand: Implications for the Credibility of Male and Female Expert Witnesses. *The Journal of the American Academy of Psychiatry and the Law*, *40*, 488–497.

Neal, T, & Kovera, M. B. (2015). Harnessing the Science of Persuasion for Expert Witness Testimony. In M. B. Kovera (Ed.), *The Science of Persuasion: Practical Insights from Research on Expert Witness Effectiveness and Jury Decision-Making*. New Orleans: Hyatt Regency.

Neal, TMS. (2009). Expert witness preparation: What does the literature tell us. *The Jury Expert*, *37*(4), 525–532. Retrieved from http://www.jaapl.org/content/37/4/525.short%0Ahttp://www.ncdsv.org/images/JuryExpert_EWPreparationWhatDoesTheLitTellUs_3-2009.pdf

O'Keefe, D. J. (2004). Trends and Prospects in Persuasion Theory and Research. In *Readings in persuasion, social influence and compliance gaining* (pp. 31–43). Boston: Pearson/Allyn and Bacon.

Parrott, C. T., Neal, T. M. S., Wilson, J. K., & Brodsky, S. L. (2015). Differences in Expert Witness Knowledge : Do Mock Jurors Notice and Does It Matter? *Publications of Affiliated Faculty: Nebraska Public Policy Center*, *43*(1), 69–81.

Sadan, M., Dikweni, L., & Cassiem, S. (2001). Pilot Assessment: The Sexual Offences Court in Wynberg & Cape Town and related services. *Idasa*, 1–59.

Schultz, L. (2014). *The Social Worker as an Expert Witness in Suspected Child Abuse Cases: a primer for beginners*. *Institute for Psychological Therapies*. Morgantown.

Shuman, D. W., & Greenberg, S. A. (2003). The expert witness, the adversary system, and the voice of reason: Reconciling impartiality and advocacy. *Professional Psychology: Research and Practice*, *34*(3), 219–224. https://doi.org/10.1037/0735-7028.34.3.219

Spellman, B., & Tenney, E. (2010). Credible testimony in and out of court. *Psychonomic Bulletin & Review*, *17*(168–173).

Thomas, A. E. (2015). The bruised child ; making your evidence stand up in court. *Paediatrics and Child Health*, *25*(8), 387–391. https://doi.org/10.1016/j.paed.2015.03.002

Van Westrhenen, N., Fritz, E., Vermeer, A., & Kleber, R. (2017). Reflections of social workers on working with abused children in South Africa. *South African Professional Society on the Abuse of Children*, *18*(1), 1–10.

Vaughan-Eden, V. (2008). Key Points to Testifying in Child Abuse Cases: Be Prepared, Be Proactive, and Be Professional. *APSAC Advisor*, 23–26.

Wachtel, M. (2017). Being prepared on the witness stand: It's more important than what the expert is wearing. Retrieved August 1, 2018, from https://www.maxwachtel.com/blog-1/2017/10/31/being-prepared-on-the-witness-stand-its-more-important-than-what-the-expert-is-wearing

Wechsler, H. J., Kehn, A., Wise, R. A., & Cramer, R. J. (2015). Attorney beliefs concerning scientific evidence and expert witness credibility. *International Journal of Law and Psychiatry*, *41*, 58–66. https://doi.org/10.1016/j.ijlp.2015.03.008

Wilcox, A. M., & Nicdaeid, N. (2018). Jurors' perceptions of forensic science expert witnesses : Experience, qualifications, testimony style and credibility. *Forensic Science International*, *291*, 100–108. https://doi.org/10.1016/j.forsciint.2018.07.030

Ziemke, M. H., & Brodsky, S. L. (2015). Unloading the hired gun : Inoculation effects in expert witness testimony. *International Journal of Law and Psychiatry*, *42–43*, 91–97. https://doi.org/10.1016/j.ijlp.2015.08.012

Zipse, D. W., & Mohla, D. C. (2014). Expert witnesses: The basics. *Record of Conference Papers - Annual Petroleum and Chemical Industry Conference*, 9–18. https://doi.org/10.1109/PCICon.2014.6961881

SECTION C: RESEARCH ARTICLE

THE ROLE OF QUALIFICATION, EXPERIENCE AND WORK CONTEXT IN PERCEPTIONS OF CREDIBILITY AND SELF-EFFICACY AMONGST FORENSIC SOCIAL WORKERS AS EXPERT WITNESSES

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ABSTRACT

The primary duty of the forensic social worker is to present expert witness testimony in the criminal court. In the adversarial judicial context, expert witness testimony represent a multifaceted, intricate task that demand abilities and expertise over and above forensic social knowledge. Efficacy in the expert witness role is determined by the judiciary that necessitate testimony that is both influential and believable. Expert witnesses perceived as a credible source of expert knowledge are more influential than witnesses that have questionable integrity. Likewise, witnesses with a strong belief in their ability to testify successfully, are more likely to be effective on the witness stand. Witness credibility and witness self-efficacy are both required to succeed in the witness role and since these two distinct concepts share significant theoretical parallels, the simultaneous analysis thereof is supported in the current study. This study represents the first attempt to analyse these concepts from a South African forensic social work perspective. By means of quantitative research the perceptions of forensic practitioners as expert witnesses was surveyed and contrasted against testifying experience, social work experience, post-graduate qualifications, work context and age. The views of 101 forensic social workers situated in eight participating organisations across South Africa was measured. The Witness Credibility Scale assessed perceptions of witness credibility, defined in terms of trustworthiness, knowledge, confidence and likeability. The Witness Self-Efficacy Scale measured perceptions of witness self-efficacy as represented by poise and communication style. Forensic social workers in this study score high in overall witness credibility along with a strong belief in the ability to present expert witness testimony successfully. As expert witnesses, forensic social workers regard themselves highly trustworthy, but lacking in confidence for the courtroom setting. However, practitioners with more court testimony experience believe they are more knowledgeable, trustworthy, credible and effective expert witnesses. Testimony delivery skills, as represented by poise and communication style, consistently appear to predict how knowledgeable, confident and credible the expert

witness is viewed by the judiciary. The current study opines that efforts to enhance witness confidence for court appearances may augment overall witness credibility and self-efficacy. Utility of the Witness Credibility and Witness Self-Efficacy Scales was assessed for the South African context.

Keywords: Forensic social worker, expert witness, witness credibility, witness self-efficacy

3.1 INTRODUCTION AND PROBLEM STATEMENT

Expert witness testimony in the adversarial nature of court is an intricate (Greeno, Bright, & Rozeff, 2013) undertaking, almost like acting in a play (Cramer, 2009), that presuppose excellence in forensic social matters, a diligent investigation, critical analysis of facts against scientific evidence (Fouché & Fouché, 2015) and a well-reasoned court report (Joubert & van Wyk, 2014). How effective the expert witness deliver testimony is by and large determined by the judiciary the forensic social worker (hereafter referred to as FSW) is duty bound to serve (Dlamini, 2016).

While the rules of engagement for expert evidence admissible in court are clearly demarcated in common law and case law (Fouché & Fouché, 2015, Joubert & van Wyk, 2014), far fewer indigenous research explicate on the effective delivery of witness testimony from a South African forensic social work perspective. Thus, what *is* known from a local perspective? Effective witness testimony demand specific expertise and proficiency in addition to forensic social work knowledge (Geldenhuys, 2011).

International research pertaining aspects associated with efficacy on the witness stand are plentiful. Empirical evidence demonstrate that effective witnesses and subsequent testimony are adequately influential and of verifiable value (Brodsky, Griffin, & Cramer, 2010).

The perceived credibility of the expert witness and the corroborative value of the evidence represent the principal component that affect the degree of influence as regards the trier of fact. Hence, witnesses perceived as a credible source of professional information; generally defined as the feature and possibility of being trusted and believed, is regarded as more persuasive than a person or evidence with dubious perceived integrity (Brodsky, Griffin, & Cramer, 2010). Linz and Penrod (as cited in Fuchsberger, 2013) describe a credible witness as one with accurate information conveyed in an unpartisan manner (Van der Merwe, 2015).

In recent years, a conceptual framework to understand, define and measure the concept referred to as *witness credibility* was established and incorporate four factors that comprise witness credibility, namely; "*trustworthiness*, *knowledge*, *confidence* and *likeability"* (Brodsky et al., 2010,

p. 898). This definition gained international recognition and subsequent research, including experimental studies, validate the accuracy and utility of the concept to assess the efficacious value of testimony presentation (Brodsky et al., 2010, Brodsky & Terrell, 2011, Cramer et al., 2011, Larson & Brodsky, 2014, Wilcox & Nicdaeid, 2018, Neal et al., 2012, Parrott et al., 2015).

Conceptually similar to the four-dimension witness credibility concept is the construct of *witness self-efficacy* and the equally significant capacity of witness demeanour, communication and presentation style on the witness stand to mobilize or diminish the perceived credibility of the professional (Cramer et al., 2010).

Witness self-efficacy emerged as a concept based on the original theoretical assertions of Bandura (Bandura & Adams, 1977), later applied to the legal arena by Robert Cramer (Cramer et al., 2010). The concept *witness self-efficacy* is understood as the belief of the expert witness in their ability to testify successfully in court. The concept embrace two dimensions, namely; *poise,* the extent of emotional regulation exerted on the witness stand, and *communication style*, the testimony delivery skills associated with verbal and non-verbal communication associated with presentation capabilities (Cramer et al., 2010).

The two constructs (*witness credibility* and *witness self-efficacy*) share conceptual and practical features that, according to the author, require simultaneous examination to develop a holistic understanding regarding efficacy of testimony presentation. During the testimony performance, specific intellectual, emotional and personal conduct faculties are engaged to facilitate both witness credibility and self-efficacy (Cramer, 2009). Both constructs independently have proven usefulness to forecast testimony performance outcomes to be expected (Cramer et al., 2014) as well as probable judicial verdicts (Cramer et al., 2010, Cramer et al., 2011). Witness self-efficacy as independent concept can forecast perceptions of overall witness credibility (Cramer et al., 2010, Cramer et al., 2011) and because *confidence* is considered greatly influential in overall credibility, the scientific usefulness of witness self-efficacy in forecasting credibility perceptions was verified (Brodsky & Pivovarova, 2016). *Poise* and *communication style* as delineated in witness self-efficacy, share behavioural similarities with all four elements that comprise witness credibility. *Poise* are connected to *confidence*, *likeability* and *trustworthiness* and *communication style* and may impact perceptions of *knowledge*, *trustworthiness*, *confidence* and *likeability*.

Due to the significance of witness credibility and self-efficacy in the expert witness role, the conceptual parallels between the constructs, the expectation that witness self-efficacy can estimate credibility perceptions (Cramer et al., 2011, Cramer et al., 2010), the dearth of indigenous research on the topic and the contextual environment of forensic practitioners;

sufficient motivation exist to investigate the two concepts simultaneously from a local forensic social work perspective.

FSW's operate in exasperating circumstances (Van Westrhenen et al., 2017) and a professional environment that appear to constrain the cultivation of witness credibility and self-efficacy in some respects. Undeniably, child sexual abuse in South Africa is rife and labelled among researchers as an *epidemic* (Artz et al., 2016, p. 34, Van Westrhenen et al., 2017). Sadan and co-writers (2001) concur that prevalence rates are high and many child sexual offence allegations are never reported. The cases that do proceed to trial infrequently result in convictions according to Brits and consequently the judiciary is faced with a high sexual abuse case load (Brits, 2015, Sadan et al., 2001).

Contributing to the low conviction rates are the dynamics of child sexual abuse whereby the allegations often cannot be corroborated by other physical or medical evidence apart from the testimony of the child complainant (Geldenhuys, 2011, Huisman, 2018, Van Westrhenen et al., 2017). Hence, evidence lead by the FSW during testimony presentation often constitute the central evidence of the case (Herman, 2010). Understandably, the judiciary are reliant on the integrity and verifiable value of the expert witness and subsequent evidence to educate the court and thereby facilitate a fair determination (Spellman & Tenney, 2010, Gabora, Spanos, & Joab, 1993; Kovera & Borgida, 1996; Mason, 1991; Morrison & Greene, 1992; Sagatun, 1991; Sales, & O'Connor, 1994 as cited in Klettke et al., 2010). Painstakingly obvious; the perceived credibility and self-efficacy of the expert witness may become the very issue on trial.

Forensic practice is a fairly new speciality field within the ambit of social work in South Africa and the South African Council for Social Service Professionals (SACSSP) have yet to formulate a code of ethics that delineate the responsibilities and duties of the FSW and their role as expert witness in particular (Dlamini, 2016). An ethical framework is required to give direction to the expert witness within the triad relationship between the litigants on both sides and the mandate of the expert witness to serve the court as primary client.

By definition, FSW's must remain impartial (Dlamini, 2016) in legal proceedings; not capitulate to adversarial pressure that favour one party to the legal proceedings (Ferreres, 2014, Meintjies-van der Walt, 2006) and maintain clear concise ethical boundaries in the adversarial process where one of the litigants are likely retaining the services of the expert witness. For a myriad of reasons, including plaintiffs displeased with the outcome of a case, FSW's may be vulnerable to malpractice allegations, incompetence accusations and/or irreparable damage to their reputation as an expert in the field.

Yet, aside from the former mentioned potential blurring of ethical boundaries, *are* the threats to credibility and self-efficacy in how the FSW deal with zealous cross-examination on the witness stand that is likely to include accusations of bias and/or incompetence. In the writer's opinion, failure to handle witness testimony skilfully may have equally devastating consequences as actually being guilty thereof.

The struggle on the witness stand can be described as a battle for control between the goal-directed effort of the opposing attorney to diminish the credibility of the expert (Davis, 2017, Geldenhuys, 2011, Schultz, 2014, Vaughan-Eden, 2008) with a toolbox of tactics and the resolve and acquired skills of the expert witness to preserve perceptions of credibility and self-efficacy. Direct and cross-examination are geared to test the legitimacy and verifiable value of evidence (Meintjies-Van der Walt, 2003). Vaughan-Eden (2008) indicate that attorneys are especially trained in the skill of uncovering the truth and issues that obfuscate pertinent facts.

In this milieu, expert witnesses unfamiliar with the nuances of cross-examination strategies who fail to deal effectively with ploys such as the *ad hominem attack* (Davis, 2017, p. 11), the *false security* (Schultz, 2014, p. 11) method and the gun for hire (Edens et al., 2012) accusations may diminish their own credibility and self-efficacy.

International mental health practitioners generally are not enthusiastic about testifying in court and in fact they seem to struggle in the courtroom (Dvoskin & Guy, 2008, Greeno et al., 2013, Morris, 2018). These struggles ostensibly are precipitated by fears concerning testimony performance, fear of not having all the answers (Morris, 2018), fear of humiliation, accusations, criticism by an aggressive attorney and they also fear the consequences if they perform poorly on the witness stand (Dvoskin & Guy, 2008, Morris, 2018). Malatji (2012) report that local FSW's experience expert witness testimony as nerve-wracking and cross-examination as simply terrifying.

Evidently, the stakes are high for the victim, the accused and the professionals involved in the case since failure to deliver testimony of sufficient influence and verifiable nature in court may be the watershed between protection, prosecution and professionalism. The question then arise; how can FSW's in the South African context succeed to educate the judiciary and augment perceptions of witness credibility and self-efficacy, or at the very least mitigate threats thereto?

Witness preparation scholars recommend prospective professional witnesses work towards the acquisition and cultivation of witness credibility and self-efficacy to fortify perceptions of witness integrity and self-efficacy on the witness stand (Brodsky et al., 2010, Cramer, 2009).

Unfortunately, very little is known about how credible and efficacious local FSW's perceive themselves in the expert witness role. As a starting point to future discourses on the topic, the current study seeks to investigate the perceptions held by FSW's in order to address these gaps in literature from a South African perspective. The presence of potential connotations among perceptions of witness credibility, self-efficacy and experience as a social worker, testifying experience, post-graduate education, work context and age was investigated to determine if any of these aspects affect the two main constructs identified.

Potentially, results from this study may illuminate on witness credibility elements that FSW's have mastered and those that require further development to excel in the witness role. Likewise, potential inter-corollary relationships detected may lend insight to factors that enhance and retract from forensic social workers' belief in their potential to succeed at this complex task.

3.2 OVERVIEW OF THE TWO CONSTRUCTS

Witness credibility

The witness credibility concept is based on the theory of source credibility that associate the inherent integrity of the speaker with certain degrees of influence (Fuchsberger, 2013). Source credibility represent one of several aspects that potentially facilitate the intellectual persuasion of people (Brodsky et al., 2010). Nevertheless, persons understood to possess integrity, thus regarded as a credible source of correct information is associated with greater degrees of influential power (Brodsky et al., 2010).

Persuasion occur by means of two distinct paths, that is the "*central"* and "*peripheral"* route for processing acquired information (Neal & Kovera, 2015, p. 2). The *central* route of persuasion is directly linked to the merits of the argument or evidence presented, but also require the capacity of the listener, in this case the judiciary, to remain engaged with the content of the argument in order to facilitate cognitive influence (Neal & Kovera, 2015).

The *peripheral* route of persuasion occur by listener reliance on the superficial idiosyncrasies such as non-verbal cues (i.e. witness demeanour inclusive of eye contact, facial expressions, hand gestures, attitude, tone of voice, pace of speech, nervousness and posture) exhibited by the witness (Neal & Kovera, 2015). Thus, degrees of influence via this path have no direct connection to the merits of the arguments or the evidence presented (Neal & Kovera, 2015). Even though listener reliance on peripheral behaviour to facilitate influence are unrelated to the verifiable value of the evidence (Boyle et al., 2014, Fuchsberger, 2013, Neal & Kovera, 2015,

O'Keefe, 2004, Wilcox & Nicdaeid, 2018), witness behaviours can and do have a significant impact on the influential power of the speaker (Fuchsberger, 2013, Morrison et al., 2007).

In the United States of America, the jury system appears to have encouraged extensive empirical studies pertaining witness credibility and preparation of the expert witness for jury trials. This is certainly not the case locally as paucity in articles on the credibility of the expert witness was observed.

An in-depth analysis of available research indicate that witness credibility is perceived as a multi-dimensional concept whereby some researchers regard one variable as more important than another. Yet, researchers are unanimous that witness credibility is a prerequisite for any practitioner called to testify as expert witness in a court of law. Available research indicates some trends of consensus concerning aspects regarded as strong predictors for perceptions of witness credibility.

Trustworthiness of the witness is regarded by Ziemke and Brodsky, (2015), Wechsler et al., (2015) and Zipse and Mohla (2014) as the most central dimension of witness credibility. They argue that a witness must be perceived as truthful and present evidence without bias and prejudice (Shuman & Greenberg, 2003). Logic dictate that trustworthiness in the witness role is indispensable as a baseline requirement to ensure evidence is of verifiable value and thus helpful to the court. This view was confirmed in an experimental study by Fuchsberger (2013) who argue that trustworthiness is so central to the concept that a separate measurement instrument should be utilised to assess this dimension of overall credibility.

The ability of the expert to present evidence in a manner that educate the court by communication that is simple, understandable and free from technical mumbo jumbo that obfuscate the data appear central to credibility assessments for this role (Barker & Branson, 1999, Davis, 2017, Dvoskin & Guy, 2008, Jurs, 2016, Meintjies-Van der Walt, 2003, Neal & Kovera, 2015, Schultz, 2014, Wilcox & Nicdaeid, 2018, Zipse & Mohla, 2014). Several researchers opine that an influential argument is one that succeeds in educating the judiciary through clarification of the concepts that facilitate proper application to the fair adjudication process (Barker & Branson, 1999, Davis, 2017, Dvoskin & Guy, 2008, Jurs, 2016, Meintjies-Van der Walt, 2003, Neal & Kovera, 2015, Schultz, 2014, Wilcox & Nicdaeid, 2018, Zipse & Mohla, 2014).

Experimental studies inspected the impact of witness attire on credibility assessments and found that sexual assault victims who wore a niqab or hijab during testimony, rated as more credible than victims who did not wear a head scarf (Fahmy et al., 2018). Nagle and Brodsky (2012)

discovered that smiling at appropriate times are associated with higher ratings of witness likeability. Boyle et al., (2014) investigated the influence of vocal pitch and argue a preference for lower pitched speaking during testimony. Witness composure in terms of confidence and the ability to manage anxiety is regarded by Dial and Ellis (2010) and Spellman and Tenney (2010) as another central dimension that predict believability. Larson and Brodsky (2014) appear to confirm that assertive as opposed to defensive answering styles seem to correlate with higher ratings of credibility, likeability and professionalism.

Gender and related stereotypes also appear to impact credibility since research detected that woman are asked more intrusive questions on the stand and generally are regarded as less credible than male witnesses (Daftary-Kapur, O'Connor, & Mechanic, 2014, Larson & Brodsky, 2010, Larson & Brodsky, 2014, Nagle, Brodsky, & Weeter, 2014, Neal, 2014, Neal et al., 2012).

In addition, research associate preparedness and familiarity with courtroom decorum, the adversarial nature thereof, comprehension of the practitioners role as expert witness and the professionalism required for this position, with perceptions of credibility (Brodsky & Wilson, 2016, Greeno et al., 2013, RICS Spokesperson, 2016, Wachtel, 2017). Blackwell and Seymour (2015) stipulate that jurors in criminal trials of sexual offences against children valued professional experience as the most valuable characteristic that inform witness credibility.

Discourse on strategies to facilitate effective witness testimony argue for the appropriate witness perspective when taking the stand, assuming the viewpoint of a teacher, patiently explaining and attentively listening to every word of each question (Barker & Branson, 1999, Morris, 2018), as is echoed by Franklin (2012) who recommend a humble disposition when testifying.

Evidently, witness credibility is sufficiently important that a body of research exist to illuminate on this concept. In 2010, witness preparation scholars set about exploratory factor analysis and isolated four peripheral factors that describe and objectively assess *witness credibility*, namely; "*knowledge*, *trustworthiness*, *confidence* and *likeability"* (Brodsky et al., 2010, p. 898). This definition of the concept has gained international recognition as the benchmark in witness credibility dialogue and subsequently social scientists have expanded research hereon by comparing and contrasting the four dimensions under experimental conditions.

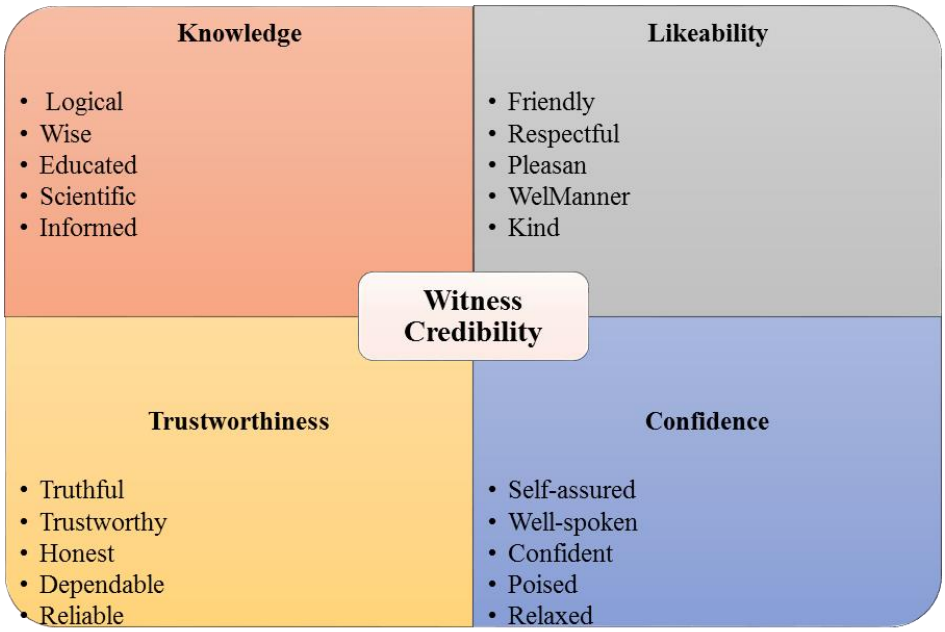


Figure 5: Witness credibility construct

Figure 5 represent a graphic depiction of how each dimension of witness credibility is operationalised (Brodsky & Pivovarova, 2016). Knowledge is central to forensic social work verifiable issues, trustworthiness convey inherent perceptions of integrity and honesty, confidence is deemed credible if in moderation and likeable experts are generally regarded as more credible; hence the four dimensions independently and conjointly forecast perceptions of witness credibility (Brodsky & Terrell, 2011).

Witness self-efficacy

Witness self-efficacy refer to the extent that the expert witness believe in their ability to succeed in delivery of expert witness testimony in court (Cramer et al., 2010). The underlying assumption of the concept stem from self-efficacy theory advanced by Bandura who argued that the degree of personal self-efficacy can project the eventual performance outcomes to be expected from people (Bandura & Adams, 1977). These researchers found that the extent of personal self-efficacy is indicative of the type, situation, duration and amount of effort expended towards the activities people choose to engage in (Bandura & Adams, 1977). The hypothesis is that the personal expectations the individual harbour concerning their ability to succeed, can significantly and with great precision forecast the potential result that may be expected concerning a given task (Bandura & Adams, 1977, Cramer, 2009).

Due to the situational similarities between teaching conditions for which the original theory was developed, and the education of the judiciary during witness testimony, Cramer and co-researchers applied the work of Bandura to the psycho-legal context specific task of testifying in court (Cramer et al., 2010). Exploratory analysis of this relatively new concept (Cramer, 2009), revealed two dimensions as central to the understanding of witness self-efficacy, specifically; *poise* and *communication style*.

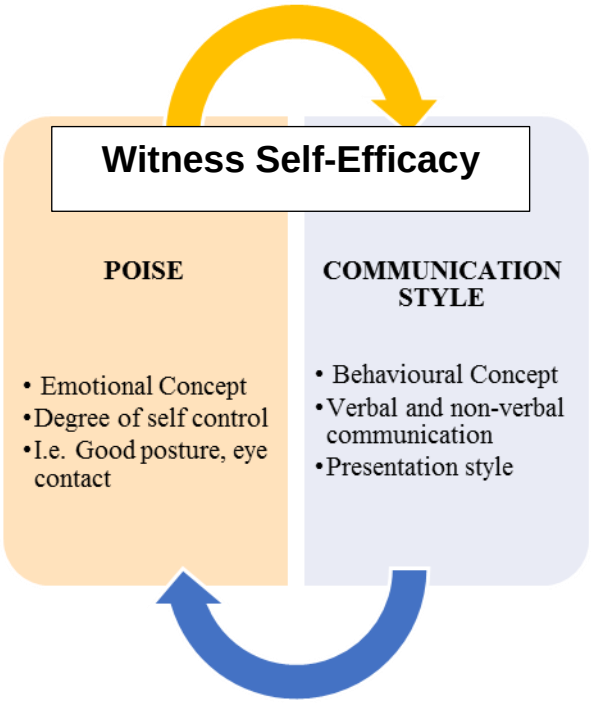


Figure 6: Witness self-efficacy construct

As indicated in figure 6, *poise* as a variable in witness self-efficacy refer to the extent that personal emotions are regulated by the testifying witness (Cramer et al., 2010). Emotional expressions such as anxiety, fear, calmness, nervousness and regulating these feelings indicate to what extent the expert have confidence in their ability to execute testimony presentation effectively.

Communication style essentially involve intellectual and personal conduct facets of verbal and non-verbal, idiosyncratic mannerisms while testifying (Cramer et al., 2010). For the lay person, self-efficacy is synonymous with general self-confidence. However, the construct developer argue that self-efficacy is dissimilar to confidence in that the former refer to the specific belief about the ability to complete a specific task well (Bandura as cited in Cramer, 2009) as opposed to self-confidence that indicate a certain degree of personal belief in a general non task-specific sense (Merkle & Zandt as cited in Cramer, 2009). Also, self-efficacy incorporate an intellectual,

emotional and personal conduct element (Cramer et al., 2010), whereas self-confidence make no reference to a behavioural component to accomplish a given task (Cramer, 2009).

Notwithstanding the above, researchers opine that *confidence* as one of four elements that encapsulate the witness credibility construct is a significant forecasting variable for perceptions of overall credibility (Cramer et al., 2010, Spellman & Tenney, 2010). Hence, the undercurrent and potential correlations of the *confidence* element in the two central constructs of this study warrant further examination.

The two dimensions central to witness self-efficacy, being *poise* and *communication style* also point to practical and theoretical parallels with witness credibility, especially due to the potential of witness demeanour to influence perceptions of *confidence*, *knowledge*, *trustworthiness* and *likeability* (Cramer et al., 2010). For example, touchpoints are evident between *poise*, *communication style* and *confidence* in relation to being well-spoken, relaxed, self-assured and organising arguments logically. As can be expected, empirical evidence for the usefulness of the witness self-efficacy concept to forecast perceptions of witness credibility are supported in former studies (Cramer et al., 2010, Cramer et al., 2011, Cramer et al., 2014).

3.3 AIMS

The broad aim of the study is:

- To investigate the concepts, *witness credibility* and *witness self-efficacy*, and the nature of the relationships amongst the two concepts with the independent variables as perceived by the FSW as expert witness in the criminal court.

The specific objectives of the study are:

- To determine how effective FSW's perceive themselves as expert witnesses through examination of perceived witness credibility and self-efficacy;
- To identify the witness credibility dimensions FSW's have mastered by comparing perceptions of the four elements; *trustworthiness*, *knowledge*, *confidence* and *likeability*;
- To investigate the inter-corollary relationships between experience as a social worker, testifying experience, post-graduate education, work context and age with witness credibility and self-efficacy;
- To determine whether witness self-efficacy as represented by *poise* and *communication style* influence witness credibility as perceived by the FSW.

3.4 RESEARCH DESIGN AND METHODOLOGY

A quantitative exploratory research methodology was used with a relation-correlation cross-sectional survey design applied to the research problem. The study is considered correlational due to the investigation of associations among the two central concepts, witness credibility and self-efficacy and the demographical variables of experience, education, work context and age (Walliman, 2005). A relation-correlation design was particularly suitable as very little is known about the topic under review and results from the study can form the basis for future research (Walliman, 2005). The study is regarded non-experimental in nature since none of the variables formerly mentioned was manipulated to test pre-existing and post-existing perceptions regarding witness credibility and self-efficacy.

3.4.1 Scope of the study

The study surveyed one hundred and one (N = 101) FSW's with former expert witness experience in the criminal court. Eight organisations known to represent FSWs participated in the study, namely; the South African Association for Social Workers in Private Practice (SAASWIPP), The Family Violence, Child Protection and Sexual Offence Unit in the South African Police Service (FCS in SAPS), Masters in Forensic Practice alumni of North-West University, The Office of the Family Advocate in the Department of Justice and Constitutional Development, Thuthuzela Centres in the Department of the National Prosecuting Authority, The Teddy Bear Clinic, NG Welfare and Patch. A link to the on-line survey was distributed via e-mail to 186 respondents and thereby achieved an acceptable response rate of 54.3%.

3.4.2 Permission and ethical approval

Prior to data collection, the researcher sought goodwill permission with each of the eight organisations that participated in this study. The application processes considered the recently ratified Protection of Personal Information (PoPI) Act No. 4 of 2013. Mediators based in each organization facilitated the identification of potential respondents. Goodwill permission was obtained from each organisation targeted and due to resource and time constraints, only these eight organisations were included in the study.

The project was approved by the Health Research Ethics Committee of the North-West University on 10 July 2019 with Ethics number: NWU-00066-18-S1. The topic under investigation was determined to be a low ethical risk

3.4.3 Data collection

An on-line questionnaire hosted by the Google Forms server was distributed to potential respondents via a link contained in an e-mail. The survey was reliant on email contacts and cannot be considered completely anonymous. On-line surveys are cost effective, versatile and lends itself to distribution efficacy, but may lead to lower response rates than paper-based, interview centred data collection methods (Rubin & Babbie, 2016).

Instrumentation

The survey incorporated demographic questions (age, work context, post graduate education, years' experience as a social worker, number of times the FSW testified as expert witness) combined with three measurement instruments standardised internationally.

The construct *witness credibility* was measured by the *Witness Credibility Scale* (WCS*), witness self-efficacy* was measured by the *Witness Self-efficacy Scale* (WSES) and the *Marlowe-Crowne Social Desirability Scale* (SDS) was included to measure social appeal bias frequently present in self-rated questionnaires (Van de Mortel, 2008).

The three measurement instruments have not been validated in the South African context. The researcher undertook construct validation of the WCS and the WSES by means of confirmatory factor analysis (hereafter referred to as CFA). Formerly derived scale properties of the three measurement instruments available in the public domain are as follows:

- The Witness Credibility Scale

The WCS, developed by Brodsky, Griffin and Cramer (2010) is a Likert-type scale used to objectively measure the perceived credibility of the expert witness. Witness credibility is defined and operationalised by four factors, that is; *confidence likeability*, *trustworthiness* and *knowledge* (Brodsky et al., 2010). The instrument is interpreted by summing a total score for 20 questions, although sub-scale scores can be utilised as well, and the higher the score the greater the degree of perception held (Brodsky et al., 2010).

Following exploratory factor analysis, the WCS was verified in six subsequent studies in which high inter-correlations was found between the subscales and the four factor structure stayed constant (Brodsky et al., 2010). Cronbach alpha values were as follows: confidence (.89 to .96), likeability (.51 to .94), trustworthiness (.92 to 98) and knowledge (.86 to .96)(Brodsky et al., 2010). On the whole the WCS was reliable (α = .95) and each subscale was individually reliable

(Confidence, α = 89, Likeability, α = 86, Trustworthiness, α = .93, Knowledge, α = .86)(Brodsky et al., 2010).

Construct validity was tested using 299 participants and an adjective checklist was used to produce convergent and discriminate data for the subscales. 46 of the 50 correlations were significant at the .01 level and 17 of the 46 significant correlations were above .50 as determined by Pearson correlation coefficients, thereby offering support for concurrent and divergent validity of the WCS (Brodsky et al., 2010).

In an exploratory study of meta-factors of expert witness persuasion, high internal consistency for the WCS was confirmed (Cramer et al., 2014). In the 2014 study, the interrelated concepts of credibility, efficacy and personality was explored to develop an integrated paradigm for understanding the faculties that facilitate expert witness persuasion. Due to the objective nature of the WCS, the instrument is particularly useful to explore the dynamics of testimony influence and efficacy, either as an independent instrument or in combination with related assessment instruments, as was the case in this study.

- The Witness Self-Efficacy Scale

The WSES, developed by Cramer, Neal, DeCoster and Brodsky is a scientific assessment instrument that utilise a five-point scale for 18 questions with extremes reflecting perceptions of not well to very well (Cramer et al., 2010). The scale is a tool used to measure a witness' own belief in his/her ability to present effective expert witness testimony in court as a unitary scale of two dimensions, that is; *poise* and *communication style* (Cramer et al., 2010). A summative total score allow result interpretation and the higher the score the greater the degree of witness self-efficacy (Cramer et al., 2010).

In the initial study,185 students was used for exploratory factor analysis and 192 for CFA during which results revealed a robust and stable two factor operation (poise and communication style), supported by a satisfactory to good model fit (Cramer et al., 2010). Validation analysis reflect the two factors were highly correlated with each other and on the whole, the scale had solid preliminary internal consistency, convergent and divergent validity (Cramer et al., 2010).

Results from the subsequent 2010 research study indicated that both poise and communication style respectively was able to forecast a number of juror assessed ratings and in that model, these two dimensions was the only elements with predictive ability. The study illuminated the forecasting power of the WSES for testimony results. Due to the ability of the WSES to forecast witness credibility, a second analysis on the credibility sub-factors indicated that both poise and

communication style clearly forecasted juror assessments of the *confidence* factor in the witness credibility construct. Hence, both WSES elements forecast not only overall witness credibility, but also witness confidence respectively, considered by Cramer and associates (2010), a highly significant finding as proof of the predictive value of the WSES instrument.

The strong positive correlation between confidence and witness credibility and credibility and judicial decision making, motivated an investigation into the likelihood of a confidence-credibility mediation model in 2011. The study hypothesized and verified that credibility do mediate the relationship between various degrees of witness confidence and juror verdicts, with a preference for moderate confidence levels to maximize perceptions of credibility (Cramer et al., 2011).

In 2014 the WSES and WCS was combined with the Five-Factor personality model whereby witness credibility, efficacy and personality was investigated in search for meta-factors that may simplify current understanding of the mechanism that facilitate expert witness influence. The research identified two factors; character and efficacy (Cramer et al., 2014).

The above discussed former research findings illustrate the usefulness and worth of the WSES as measurement, exploratory and forecasting tool for the analysis of intellectually determined potential influence of expert witness testimony, credibility and related efficacy in the legal arena. Similarly, the confidence dimension is considered a significant influence in credibility determinations (Cramer et al., 2010) and hence it is probable that witness confidence may account for the greatest variance in the WCS results in the current study.

- The Marlow-Crowne Social Desirability Scale

Marlowe-Crowne originally developed the Social Desirability Scale (SDS) in 1960 as a means to quantify responses that present with social appeal prejudice (Fischer & Fick, 1993). People generally want to be socially acceptable and due to this have a proclivity to portray themselves more favourable when self-reporting on questionnaires (Van de Mortel, 2008). Researchers thus recommend that a social desirability scale be included in studies that require self-administered questionnaires in order to distinguish and quantify inter-correlations that reflect this prejudice. A researcher who is aware of this response trend can incorporate the findings in the holistic interpretation of subsequent results, which allow for a more balanced overall perspective. The absence of a social appeal measurement instrument may result in a skewed perspective of identified correlations and thereby not measure intended constructs precisely (Van de Mortel, 2008).

The shortened version of the SDS as amended by Reynolds (1982) was utilised in an effort to reduce response fatigue. The Short Form MCSDS comprised of 13 true-false questions depicting behaviours which are socially desired but highly improbable for the average person. The scale is scored by obtaining a total score whereby the lowest value of social appeal bias is zero with thirteen regarded as the highest degree thereof.

Zook and Sipps cross validated the scale with two samples of undergraduate and one sample of graduate students from six universities (as cited in Greenberg & Weiss, 2012). The Kuder Richardson formula 20 (KR-20) was determined for each group and coefficients ranged from .63 to .82 with a combined coefficient of .74 (Greenberg & Weiss, 2012). Fraboni and Cooper administered the scale to a general population sample and results returned a robust internal consistency (as cited in Greenberg & Weiss, 2012). Loo and Loewen tested the instrument with 633 undergraduates and a comparable fit index of .85 was determined for the scale (as cited in Greenberg & Weiss, 2012).

More recently, Greenberg and Weiss (2012) had 241 police officers complete a battery of tests including the Short Form SDS, the Buss-Perry Aggression Inventory, the Greenberg Prejudice Scale and the MMPI-2 scale. The SDS yielded good reliability with a Cronbach Alpha value of .74 and external validity was confirmed by the negative correlations between the Short Form SDS, the Buss-Perry Aggression Inventory, the Greenberg Prejudice scale and the K and L scales from the MMPI-2 (Greenberg & Weiss, 2012). Construct validity is supported in this study due to the increase in social desirability scores with a corresponding decrease in the aggression and prejudice scales; the latter of which are not desired behaviours among policeman.

Evidently, a SDS is a useful instrument to offer further validation of the results obtained from the central measurement instruments about which the findings seek to make inferences about.

3.4.4 Data analysis

Research data was analysed in collaboration with the Statistical Analysis Services of North-West University on IBM SPSS Version 25 software. Data analysis comprised of the following steps:

1. Data collected by means of Google Forms was coded and cleaned to eliminate data entry errors
2. The characteristics of the sample was analysed by means of univariate descriptive analysis
3. Scale reliability was assessed by means of Cronbach's Alpha

4. Construct validity by way of CFA for the WCS and the WSES was established using Amos 25
5. Correlations was analysed by means of Pearson correlation and non-parametric alternatives such as Spearman's rank order correlation
6. Group differences was analysed by means of ANOVA and the alternative non-parametric technique of Spearman's rank order correlation
7. Mean scores on the WCS and WSES was regarded as dependent variables while the demographical variables were considered independent or grouping variables
8. Prediction analysis was conducted by means of Structural Equation Modelling and regression analysis techniques utilizing Amos 25

3.4.5 Limitations of the study

Results obtained from the above analysis should be interpreted in conjunction with the study limitations. In terms of quantitative research studies, the sample (n = 101) is considered relatively small although the forensic social work population in South Africa is currently undefined.

CFA generally require samples larger than 100 (Hair, Anderson & Tatham as cited in Williams et al., 2010) and a minimum of 200 sample units are recommended for structural equation modelling (SEM) analysis (Weston & Gore, 2006). According to these parameters the sample size may not have been adequate for SEM.

Additionally, analysts report the sensitivity of the chi-square test to sample size variations (Hooper, Coughlan, & Mullen, 2008). As recommend by Wheaton and colleagues, the normed chi-square test was divided by Degrees of Freedom in order to obtain a more reliable coefficient (as cited in Hooper et al., 2008).

Validity testing of the WCS and WSES was limited to construct validity, therefore content and criterion validity was not established in this study (Heale & Twycross, 2015).

The self-report nature of the on-line survey was susceptible to social appeal bias; the tendency of people to present an inflated image of themselves and a phenomenon that commonly occur in self-report research surveys (Van de Mortel, 2008). Desirability prejudice in a dataset may cause correlations among variables to become distorted and thus no longer measure the intended constructs properly (Van de Mortel, 2008).

For this reason, the Marlowe-Crowne Social Desirability Scale was included to measure social appeal bias potentially present in the WCS and WSES scores to enhance the validity of the results

obtained (Fischer & Fick, 1993). The process of regression analysis was utilised to detect and correct desirability appeal inherent in the data collected (Greenberg & Weiss, 2012).

Potential inter-correlations between and within groups as proposed by the three underlying hypotheses was identified. To investigate the predictive pathways further, the positive correlations with statistical significance was subjected to regression analysis. Although strong correlations between and within groups was detected, the researcher cannot stipulate that neither the constructs, latent variables or subsequent covariance's cause a change in the other (Weston & Gore, 2006). Causality in social science is reliant on experimental and longitudinal methodologies designed for this purpose. Hence, in this study the directional pathways hypothesised depend on the reliability of the underlying theory that support the *witness credibility* and *self-efficacy* concepts respectively.

3.5 RESULTS OF DATA ANALYSIS

3.5.1 Demographic information

Data exploration commenced with univariate analysis of the demographic characteristics regarding respondent age, current work context, post graduate education, years' experience as a social worker and the number of times presenting expert witness testimony in court.

One hundred and one (n = 101) FSW's (Mean age = 46.19 years; SD = 8.85, range = 28-70) completed the on-line self-assessment survey.

Thirty-four respondents (33.7%) maintain a private social work practice, twenty-three respondents (22.8%) work in the Office of the Family Advocate, twenty-three respondents (22.8%) are members of the Family Violence, Child Protection and Sexual Offences Unit (FCS), eleven respondents (10.9%) are with non-governmental organisations (NGO) and ten respondents (9.9%) work in the Department of Social Development.

According to these figures, the majority (55.5%) of respondents was employed by National government, followed by self-employed (33.7%) FSW's and then the NGO agency social workers (10.9%). The work context ranges in the sample indicate good representation of the workplaces that represent FSW's in South Africa.

Most of the respondents (57.4%) held a post graduate formal qualification. Forty-seven respondents held a Master's degree (46.5%) and eleven (10.9%) held a Doctoral degree

respectively, while forty-three (42.6%) responders held the Bachelor of Social Work qualification only.

Reflection on post-graduate training of FSW's was important due to the logical probability that this variable may increase perceptions of witness credibility and self-efficacy. Analysis of respondents' post-graduate education indicate that the majority of professionals hold more than one formal degree, of whom several hold a Master's degree in Forensic Practice.

Social workers with up to five years' experience constituted 4% of the sample, 6.9% have up to ten years' experience and 37.6% of respondents had up to twenty years' social work experience. Significantly, 51.5% of the sample and therefore the majority held more than twenty years' experience in the social work field. Henceforth, 89.1% of FSW respondents held more than ten years' experience in the field. This result confirm that the study reached the appropriate population as planned.

Three respondents (3%) indicated that they testified once, twenty responders (19.8%) testified up to 5 times, eighteen respondents (17.8%) testified up to 10 times, nineteen responders (18.8%) had testified up to 20 times, while the majority being forty-one responders (40.6%) testified as an expert witness more than 20 times. Sample characteristics accordingly indicate that 59.4% of respondents testified more than 11 times. This finding validate data obtained from years' experience as a social worker and thereby confirm once more that the appropriate population was targeted.

Table 1: Demographic information

Demographic Information of Sample

	n	Mean	SD	LO	HIGH
Age	101	46,19	8,850	28	70
Work Context	DSD	NGO	DOJ	SAPS	Private Practice
	9,90%	10,90%	22,80%	22,80%	33,70%
Number of Times Testified as an Expert Witness	Once	1-5 Times	6-10 Times	11-20 Times	20+ Times
	3,00%	19,80%	17,80%	18,80%	40,60%
Years' Experience as a Social Worker	1-5 Years	6-10 Years	11-20 Years	20+ Years	
	4,00%	6,90%	37,60%	51,50%	
Highest Level of Tertiary Education	Bachelor	Masters	Doctorate		
	42,60%	46,50%	10,90%		

Note. N = sample

According to the data stipulated in table 1, the appropriate population was reached as intended.

3.5.2 Descriptive statistics

Statistics of the sample, as depicted in table 2 reflect results from the three measurement instruments used in the study and indicate the minimum, maximum, mean and standard deviation scores as rated by the 101 FSW's.

According to the figures, respondents present with high perceptions of overall witness credibility as indicated by a rating of 8.58 out of 10 (M = 8.58, SD 1.05). Equally high perceptions of witness self-efficacy were recorded with a rating of 4.02 out of 5 (M = 4.02, SD 0.55). On the social appeal prejudice instrument, values higher than 9.66 out of 13 (M = 9.66, SD 2.35) was considered a high predisposition for social appeal.

The frequency of ratings above the mean for social appeal prejudice were as follows: 46 respondents (45.54%) scored either below or up to 9 out of 13, while 55 respondents (54.46%) scored higher than the mean for the total sample. In the context of expert witness testimony, it is to be expected that persons will want to be accepted and liked, henceforth it is not usual to see the presence of social desirability bias in the current study. The results indicate that slightly more than half of the respondents in the sample scored higher than the mean of 9.66, regarded as the

dependant variable, and thus it is the researchers' view that correlations contained in the results are realistic representations of existing covariance.

The figures in table 2 and figure 7 show *trustworthiness* (M = 9.28, SD 1.42) as the highest dimension of the four factors that operationalise witness credibility, followed by *knowledge* (M = 8.69, SD 1.05), *likeability* (M = 8.49, SD 1.31) and *confidence* (M = 7.84, SD 1.38) with the lowest rating. The results obtained in the current study support the overall pattern of the original validation studies whereby *confidence* as one dimension is proven a significant swaying factor in perceptions of overall credibility. The original validation study reported *confidence* as the strongest factor followed by *trustworthiness* (Brodsky et al., 2010) and the current study report trustworthiness as the strongest factor with confidence a significant factor in retracting from overall credibility. The results also support the experimental research study outcomes by Fuchsberger (2013) where the *trustworthiness* dimension accounted for the greatest variance in overall credibility perceptions.

Table 2: Descriptive statistics

Descriptive Statistics: WCS, WSES and SDS				
Factors	Minimum	Maximum	Mean	Std. Deviation
WCS Likeability	2,60	10,00	8,4950	1.31075
WCS Trustworthiness	1,00	10,00	9,2832	1.42303
WCS Confidence	4,40	10,00	7,8495	1.38171
WCS Knowledgeable	3,00	10,00	8,6990	1.05589
WCS Total	2,75	10,00	8,5817	1.05111
WSES Total	2,67	5,00	4,0275	0.55320
SDS Total	1,00	13,00	9,6634	2.35914

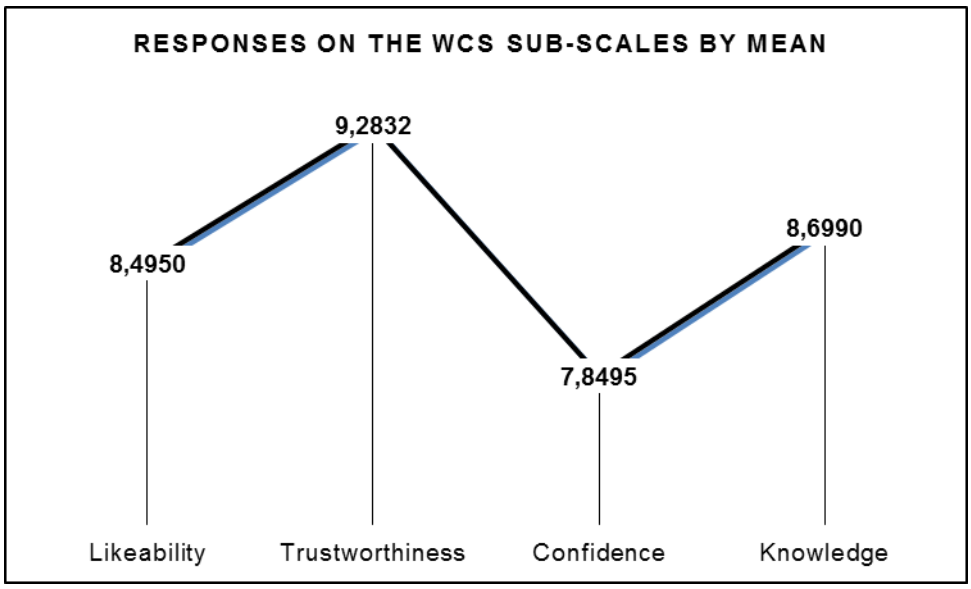


Figure 7: Responses on the WCS sub-scales by mean

The graphic illustration in figure 7 indicate how likeable, trustworthy, confident and knowledgeable the sample of 101 forensic practitioners view themselves when testifying as expert witness in the criminal court.

3.5.3 Scale Reliability

Scale *reliability* refer to the extent that the measurement instrument will consistently yield similar results when administered to the same sample under similar testing conditions, therefore the internal dependability of the instrument which is estimated in quantitative research with the Cronbach Alpha coefficient (Trochim, 2006). Cronbach alpha is the reliability assessment used by most quantitative researchers (Heale & Twycross, 2015) and a coefficient score between 0 and 1 is returned as indicative of internal reliability. The closer the score is to 1, the more reliable the instrument is likely to be, yet a score above 0.7 or higher is considered an acceptable score for determinations of overall reliability (Heale & Twycross, 2015).

The figures depicted in table 3 provide the alpha coefficients for all the dimensions of the WCS, WSES and the SDS. The SDS achieved a reliability score of just under 0.7. However, Plummer and Tanis Ozcelik opine that Alpha reflect a "*threshold of acceptability"* (Plummer & Tanis Ozcelik as cited in Taber, 2018, p. 1278) and currently no consensus exist among researchers on whether values of 0.65 are satisfactory (Taber, 2018). Nevertheless, according to Taber (2018), an Alpha value lower than 0.7 is not necessarily indicative of poor scale reliability.

Table 3: Scale reliability

Scale Reliability: WCS, WSES and MCSDS	
Scale	Cronbach alpha (n = 101)
WCS Likeability	0,883
WCS Trustworthiness	0,968
WCS Confidence	0,878
WCS Knowledgeable	0,927
WCS Total	0,878
WSES Total	0,942
SDS Total	0,654

3.5.4 Construct validity

Dependable extrapolations about scale scores require the researcher to establish whether the measurement instruments used in the study, truly measures what it intends to measure. Scale validity refer to the accuracy (Heale & Twycross, 2015) with which the instrument measures the concept it was designed to measure. Hence, the greater instrument validity, the stronger the inferences to be made concerning the scale ratings (Trochim, 2006).

According to Rubin and Babbie (2016), construct validity determine the extent that the scale measures the theoretical definition of the concept it was designed to measure and in the current study to ascertain if the theoretical constructs can be confirmed by the empirical data, hence construct validity. Factor analysis is arguably the ideal test (Williams et al., 2010)(Williams et al., 2010)(Williams et al., 2010) to establish construct validity and defined as a "*multivariate statistical procedure"* utilised to classify and advance theoretical concepts and to produce evidence of validity pertaining a particular theoretical construct measured by self-reporting scales (Williams, Onsman, & Brown, 2010, p. 1).

Exploratory factor analysis (EFA) seek to produce a theory as opposed to CFA that test the validity of an existing or proposed theory such as witness credibility and self-efficacy (Williams et al., 2010).

To test the measurement model and considering the relatively small sample on all scales used in this study CFA was undertaken with structural equation modelling; understood as a quantitative measurement or a structural model (Weston & Gore, 2006). As a measurement model, construct validity is established by examining factor loadings on each of the variables to determine how well

they combine to holistically classify the hypothetical construct the scale is meant to measure (Weston & Gore, 2006).

As recommended by Williams and co-researchers (2010), the Keiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity was conducted to assess the suitability of the data for factor analysis. The KMO test yield a value between 0 and 1. Field (2005) cite Kaiser who indicate that values greater than 0.5 indicate sample sizes acceptable for factor analysis, along with the following guidelines; 0.5 to 0.7 mediocre, 0.7 to 0.8 are good, 0.8 to 0.9 are great and values above 0.9 are fantastic (Hutcheson & Sofroniou as cited in Field, 2005).

Bartlett's measure yield a yes/no result whereby a highly significant ($p<0.001$) value indicate that some relationships between variables are present and consequently suitable for factor analysis on the specific scale (Field, 2005).

The WCS returned a great KMO result (0.895) and a significant ($p<0.001$) result for Barlett's test. The WSES produced a similarly good result for KMO (0.928) and a significant ($p<0.001$) result for Barlett's test. Results for both scales confirmed adequacy of the sample for factor analysis.

Witness Credibility Scale (WCS):

Witness credibility theory propose that the concept consist of four factors, specifically; *likeability*, *trustworthiness*, *confidence* and *knowledge* (Brodsky et al., 2010). CFA was undertaken with structural equation modelling in SPSS to determine if each of the items loaded on each of the four factors accordingly and to test the combined four-factor assumption. Regression coefficients for item-totals all correlated significantly and above the 0.3 level, considered an acceptable correlation to the total score (Rossouw, 2010). Four factors were identified and accounted for 82.86% of the variance for the total scale. The scale as used confirmed the instrument as validated.

The four sub-scales correlated above the 0.49 level to the total score. According to the figures, factor loadings indicate that the dimensions *trustworthiness*, *confidence* and *knowledge* load correctly and significantly for each sub-scale. Alas, a very high inter-correlation between the factor *likeability* and *trustworthiness* was detected. On the likeability sub-scale, two cross-loadings with trustworthiness higher than 0.30 was found. The items disrespectful/respectful (0.823) and ill-mannered/well-mannered (0.854) loaded on the *trustworthiness* factor instead of the *likeability* factor. This cross-loading was not present in the original scale validation studies.

In the South African context, it would appear that FSW's in a courtroom setting associate being respectful and well-mannered with traits of trustworthiness instead of likeability. The three items that did load on the likeability factor was at a value of 0.916, 0.639 and 0.565. The high inter-correlation between *likeability* and *trustworthiness* indicate that factor analysis did not fully succeed to distinguish the two factors and hence likeability and trustworthiness may measure the same latent variable in the South African context.

This phenomenon is called multi-collinearity and refer to an instance where variables are so highly correlated that they resemble the same variable, rendering at least one variable unnecessary (Weston & Gore, 2006). It is argued by Kline (as cited in Weston & Gore, 2006) that multi-collinearity may present problems in structural equation modelling and could lead to faulty indicators generated by statistical analysis. Bivariate correlations in excess of r = .85 point to potential data analysis problems; as was reflected in the strong inter-correlation between *likeability* and *trustworthiness* (r = .91) (Kline as cited in Weston & Gore, 2006). Although cross-loadings met this criterion, data analysis proceeded with both sub-scales included.

Overall model adequacy for the instrument was conducted with structural equation modelling that permit the evaluation of multiple analysis and interpretation of goodness of fit indices to determine if the theoretical data accurately represent the relationships among variables and constructs as represented by equations (Weston & Gore, 2006). According to Hooper, Coughlan and Mullen (2008), researchers must maintain integrity by reporting a variety (Crowley & Fan as cited in Hooper et al., 2008) of indices and not simply those that reflect favourable results. Kline (as cited in Hooper et al., 2008) propose the combination of the Chi-square test, the Root Mean Square Error of Approximation (RMSEA), the Comparative Fit Index (CFI) and the Standardised Root Mean Square Residual (SRMR).

The researcher investigated and report three model fit indices, specifically; the Chi-square test (Hooper et al., 2008), RMSEA (Hox & Bechger, 1995) and the CFI (Hooper et al., 2008).

- Researchers argue that the Chi-square test is overly constricting and based on limitations pertaining underlying assumptions of normality in data and sample size (Hooper et al., 2008). Therefore, Wheaton and co-authors (as cited in Hooper et al., 2008) suggest that the normed Chi-square test be divided by Degrees of Freedom ($\chi 2/df$) to minimize false results due to implications of sample size. Currently, statisticians are not unanimous pertaining values that represent goodness of fit however, acceptable values range from

as low as 2.0 (Tabachnick & Fidell as cited in Hooper et al., 2008) to as high as 5.0 (Wheaton et al. as cited in Hooper et al., 2008).

The WCS model yielded a Minimum Sample Discrepancy divided by Degrees of Freedom (CMIN/DF) value of 3.250. Hence, an acceptable model fit result.

- RMSEA have become a relied upon fit index due to its consideration for optimal parameters (Diamantopoulos & Siguaw as cited in Hooper et al., 2008) and the techniques' ability to calculate confidence levels (MacCallum as cited in Hooper et al., 2008) that assist data clarification. Debate concerning acceptable values that support model fit provide for a range between 0.06 (Hu & Bentler as cited in Hooper et al., 2008) and 0.10 (MacCallum as cited in Hooper et al., 2008). The sampling error usually associated with RMSEA is a 90% confidence interval (Weston & Gore, 2006).

  The WCS returned a RMSEA value of 0.150 (LO = 0.136, HI = 0.164) with a 90% confidence interval. According to specified parameters, this result do not indicate a good model fit.

- CFI represent an incremental fit statistic that is less affected by sample size (Byrne as cited in Hooper et al., 2008). Values generated by CFI range between 0 and 1 with values closer to 1 indicative of a better fit (Weston & Gore, 2006).

  The CFI returned for the WCS was 0.837, thereby suggesting acceptable model fit

Two out of three statistical tests suggest acceptable model fit with one technique, the RMSEA result to the contrary. The two sub-scales; *trustworthiness* and *likeability* was combined and the overall model fit analysed again. Hitherto, model fit results did not improve.

The above results partially support validity of the WCS in that all the items loaded above the .30 level, four factors were identified, the sub-scales correlate significantly and two model fit indices were found to be acceptable. However, multi-collinearity detected and the poor RMSEA model fit result in the current study, suggest that the scale may not be suitable considering the current data set.

Witness Self-efficacy Scale (WSES):

Witness self-efficacy theory proposed by Cramer (2009) suggest the concept comprise two dimensions; *poise* and *communication style* which conjointly define the concept although the WSES was designed as a unitary instrument. CFA with structural equation modelling test if the items load on each of the variables as expected and to investigate the two-factor assumption.

Regression coefficients for the eighteen scale items all correlated above the 0.4 level and is considered an acceptable correlation to the total score (Rossouw, 2010). Two factors were identified that explained 59.68% of the variance for the total scale and factor loadings converged in six iterations of the scale items. The scale as used confirmed the instrument as validated.

Overall model adequacy for the instrument was conducted with structural equation modelling (Weston & Gore, 2006).

- The WSES model yielded a Minimum Sample Discrepancy divided by Degrees of Freedom (CMIN/DF) value of 1.827; therefore, close to the acceptable range.

- The WSES returned a RMSEA value of 0.09 (LO = 0.073, HI = 0.109) with a 90% confidence interval. According to specified parameters this result indicate a good model fit. Former CFA results reported by Cramer, Neal, DeCoster and Brodsky achieved a RMSEA result of 0.07, consistent with the LO parameter returned with a 90% confidence interval in the current study (Cramer et al., 2010).

- The CFI returned for the WSES was 0.900, thereby indicative of a good model fit. Similarly, the CFI result of .93 reported by Cramer and co-researchers (Cramer et al., 2010) appear consistent with the score obtained in this study.

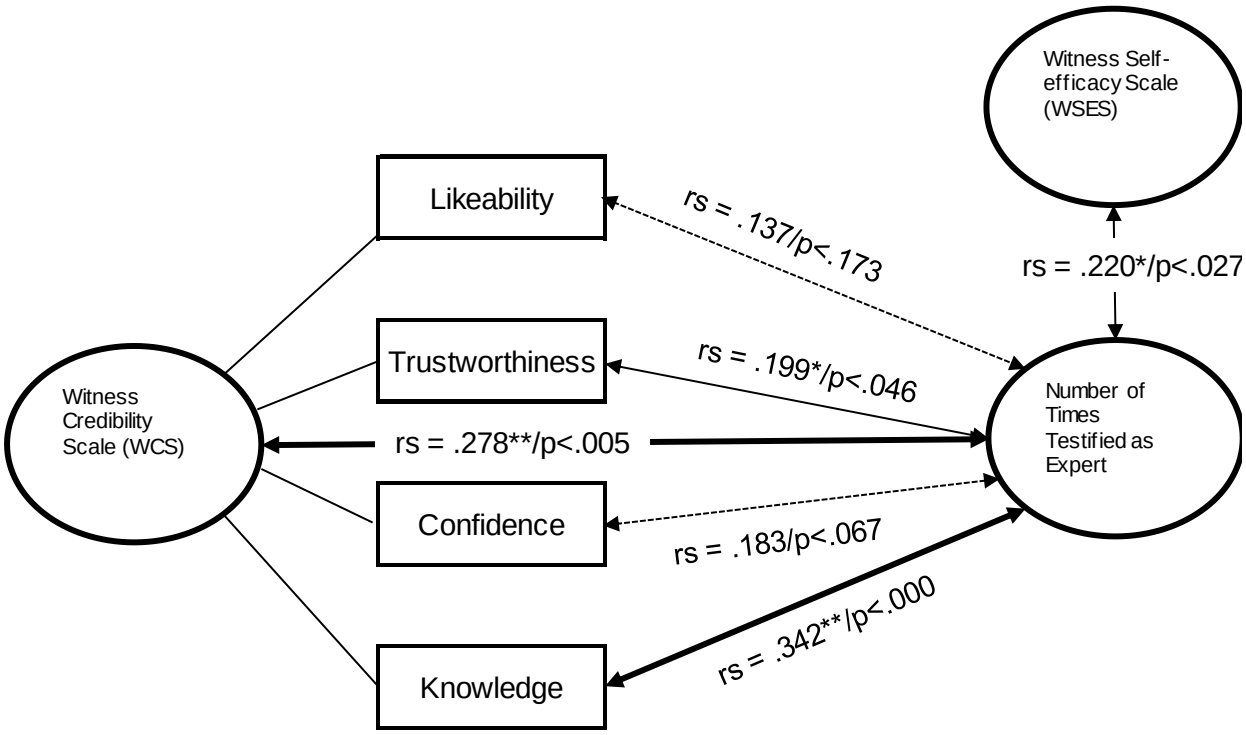
Two out of three statistical tests indicated satisfactory model fit with one technique, the Chi-square test bordering on acceptable model fit. However, the chi-square test is notoriously constricting and sensitive to differences in sample size (Hooper et al., 2008).

The above results support evidence of internal validity as all the items loaded above the .40 level, two factors were identified as proposed and two model fit indices specified good model fit. Considering the current data set, the results appear to support internal validation of the WSES. As set out the objectives of the current study, scale validation of the Marlowe Crowne Social Desirability Scale was not analysed.

3.5.5 Correlations between and within groups

The three research hypotheses was tested by examining the relationships produced by Spearman's Rho test; a non-parametric statistic with a value range between -1 and +1 (Lani, 2010). Spearman's Rho correlation coefficient represent effect size according to guidelines indicative of correlation strength, specifically; "*20 - .39 is weak, .40 - .59 moderate, .60 - .79 strong and .80 - .1.00 is a very strong"* correlation (Owen et al., 2019, p. 2).

a) Correlation analysis in respect of hypothesis 1: Perceived witness credibility and witness self-efficacy are influenced by age, work context, post graduate education, years' experience as a social worker and the number of times the FSW testified as expert witness.



*** Correlation is significant at the 0.05 level (2-tailed)**

**** Correlation is significant at the 0.01 level (2-tailed)**

Figure 8: Hypothesis 1 model

According to the model depicted in figure 8, only one independent variable; *the number of times the FSW testified as expert witness* pointed to a significant positive correlation with the WCS and WSES. Therefore, FSW's that have testified as an expert witness more frequently regard themselves as more credible and with higher self-efficacy in the expert witness role.

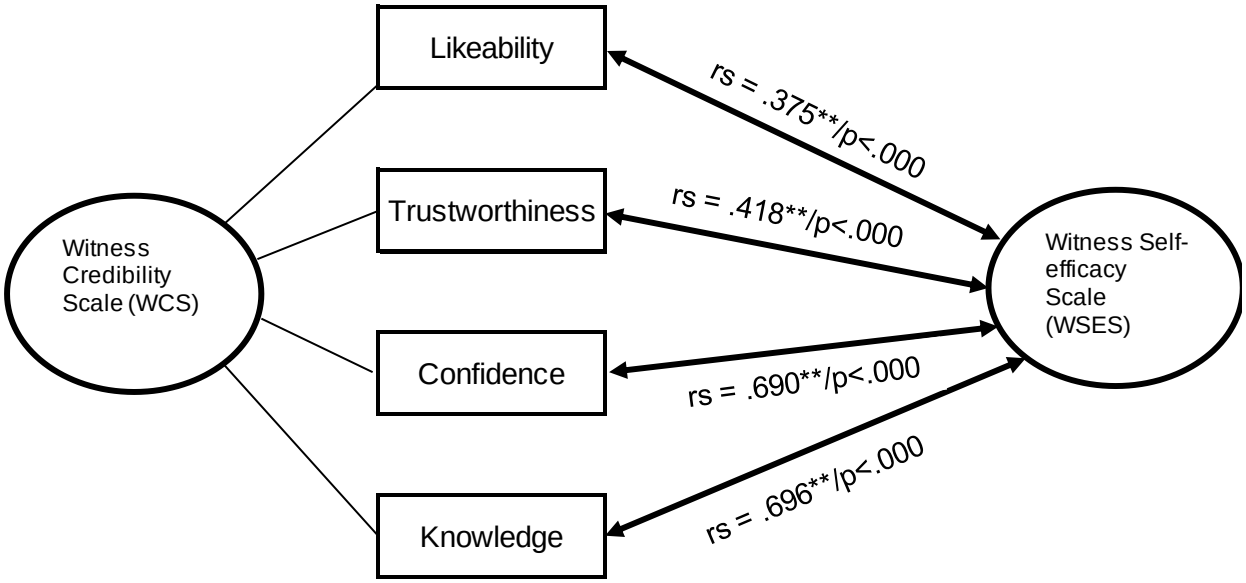
The witness credibility factors, *knowledge* and *trustworthiness* individually correlated significantly with the independent variable, thereby suggesting that the more testifying experience the FSW gains, the more knowledgeable and trustworthy they perceive themselves to be.

Statistically significant positive correlations were detected between the independent variable; *the number of times the FSW testified as expert witness* and *trustworthiness* ($rs = .20$, $n = 101$, $p<.046$) and *knowledge* ($rs = .34$, $n = 101$, $p<.000$). The independent variable positively correlated on the whole with the *WCS* ($rs = .28$, $n = 101$, $p<.005$) and the *WSES* ($rs = .22$, $n = 101$, $p<.027$).

No significant relationship between the independent variables of age, work context, post-graduate qualifications or social work experience and witness credibility or witness self-efficacy scores was found.

Henceforth, hypothesis one is partially supported in that testifying experience present with a corresponding relationship to perceptions of witness credibility, the sub-factor trustworthiness and knowledge and witness self-efficacy. It is thus apparent that witness credibility and witness self-efficacy are not influenced by demographic variables associated with place of work, age, post-graduate qualifications or social work experience in general.

b) Correlation analysis in respect of hypothesis 2: Perceived knowledge, trustworthiness, confidence and likeability correlate positively with witness self-efficacy as represented by poise and communication style



*** Correlation is significant at the 0.05 level (2-tailed)**

**** Correlation is significant at the 0.01 level (2-tailed)**

Figure 9: Hypothesis 2 model

Results from figure 9 indicate that a statistically significant positive correlation exist between each of the witness credibility sub-factors and the WSES as represented by *poise* and *communication style*.

There was a statistically significant but weak correlation between *likeability* (rs = .36, n = 101, p<.000), a moderate correlation between *trustworthiness* (rs = .42, n = 101, p<.000), a strong correlation with *confidence* (rs = .70, n = 101, p<.000) and a strong correlation with *knowledge* (rs = .70, n = 101, p<.000) and *witness self-efficacy* in the data set.

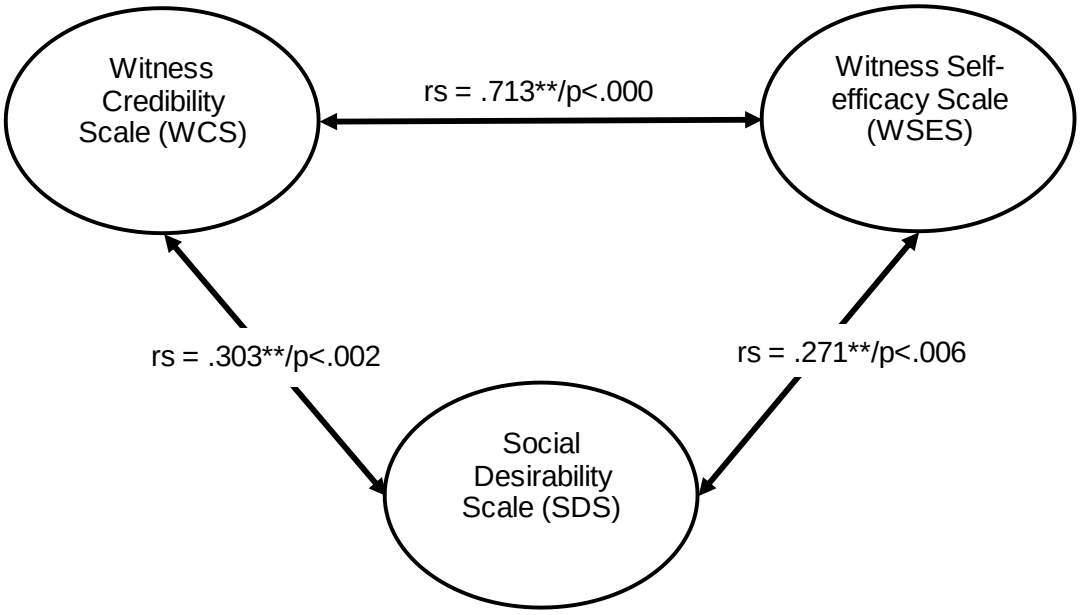
This result indicate that FSW's with high degrees of perceived witness self-efficacy, being belief in their ability to succeed in the role of an expert witness (Cramer et al., 2010), also present with high degrees of confidence and knowledge.

The strong correlation between the *confidence (witness credibility)* dimension and *witness self-efficacy* are indicative of the conceptual similarity between the two central concepts as suggested in the current study. Witnesses who hold strong internal feelings about their ability to succeed in this role, appear to present with equally generous subjective *confidence*. Similarly, witnesses with

strong faith in their ability to succeed as expert witnesses also believe they are *knowledgeable* experts. *Knowledge* as credibility dimension involves being logical, wise, educated, scientific and informed and *confidence* is operationalised as being self-assured, well-spoken, confident, poised and relaxed (Brodsky et al., 2010).

According to results from this correlation model, hypothesis 2 is supported by the positive correlations identified between the four dimensions of witness credibility and witness self-efficacy.

c) Correlation analysis in respect of hypothesis 3: Perceived witness credibility are not determined by age, work context, post graduate qualification, years' experience as a social worker and the number of times the FSW testified as an expert witness, but by witness self-efficacy as represented by poise and communication style.



*** Correlation is significant at the 0.05 level (2-tailed)**

**** Correlation is significant at the 0.01 level (2-tailed)**

Figure 10: Hypothesis 3 model

Results from Spearman's Rho correlation for the model in figure 10 specify a strong statistically significant positive correlation between the WCS and WSES (rs = .71, n = 101, p<.000). Similarly, the SDS present with a statistically significant, but weak positive correlation between the WCS (rs = .30, n = 101, p<.002) and the WSES (rs = .27, n = 101, p<.006). Therefore, even though respondents present with some social appeal prejudice as is evident in the weak statistically significant relationship reported, this is to be expected for expert witnesses who will want to be accepted and liked within the context specific role of witness testimony.

According to the above results, FSW's who regard themselves as credible experts also have greater belief in their ability to succeed in the expert witness role (witness self-efficacy) (Cramer et al., 2010).

This finding unequivocally support the work of Cramer, DeCoster, Harris, Fletcher and Brodsky (Cramer et al., 2011) who concluded that *witness self-efficacy* is a strong forecaster of *credibility* perceptions and the subsequent outcomes to be expected from witnesses. According to this premise, FSW's with a strong belief in their ability to present successful witness testimony (witness self-efficacy) are more likely to actually be effective witnesses, as a result of the correlation detected between witness self-efficacy and witness credibility.

Hence, the above identified strong correlation between witness self-efficacy and witness credibility lend support for hypothesis 3 as proposed in the current study.

3.5.6 Hypotheses prediction analysis

The identified covariances revealed by Spearman's Rho Test for hypotheses 1, 2 and 3 was subjected to SEM to explore the hypothesized causal relationships further. Weston and Gore (2006) indicate that SEM possess the ability "*to estimate and test relationships among constructs"* (p. 723), even though causality per-sé cannot be concluded from the results apart from longitudinal and experimental research designs suited for that purpose.

Results for the following path analysis model; a) *the number of times the FSW testified in court,* b) *witness credibility,* the sub-factors *of* c) *likeability,* d) *trustworthiness,* e) *confidence*, f) *knowledge,* g) *witness self-efficacy and* h) *social desirability*, are as depicted in table 4:

Table 4: Hypotheses prediction analysis

Prediction Analysis Model: WCS Dependent Variable			
Factor		Factor	p Value
Likeability	<--	WSE	0,010
Trustworthiness	<--	WSE	0,031
Confidence	<--	WSE	***
Knowledgeable	<--	WSE	***
WCS	<--	WSE	***
WCS	<--	How many times testified as an expert witness	0,365
WCS	<--	SDS	0,864

***** Significant at P = < 0.001**

Significance tests in quantitative research exist as a means to aid interpretation pertaining the soundness of a particular finding and thereby provide scientific evidence that the data results obtained was not due to random chance or luck and instead truly are "*statistically significant"* (Filho et al., 2013, p. 33). The significance test yield one of two results; either the null hypothesis ($H_{\circ}$), being that no relationship is present or the alternative hypothesis (H_a), that a relationship do exist (Filho et al., 2013).

The p value reflected in table 4 represent the calculated probability that the statistically significant relationship discovered, happened only by "*chanc*e" (Henkel as cited in Filho et al., 2013, p. 34). Statistically highly significant results in table 4 is a p value of < 0.001 (less than one in a hundred) chance of being wrong. Therefore, post subjection of covariance's to SEM, relationships with statistical significance of a less than one in a hundred chance of being wrong (99% certainty or 1% uncertainty), are indicated with three asterisks (***).

According to the figures in table 4, *witness self-efficacy* presents with a statistically significant positive correlation and appear to predict the unitary concept of *witness credibility* and the sub-dimensions of *confidence* and *knowledge* in particular. Accordingly, it is hypothesized that FSW's with greater belief in their ability to succeed in the expert witness role (witness self-efficacy) (Cramer et al., 2010) will produce higher ratings of perceived confidence, knowledge and overall witness credibility.

Within the above regression model at 99% confidence level, the significant influence of *likeability*, *trustworthiness*, *testifying experience* and *social desirability* are no longer statistically significant.

Model fit results for the above specified path analysis returned a Minimum Sample Discrepancy divided by Degrees of Freedom (CMIN/DF) value of 3.689, ostensibly an acceptable model fit result. The RMSEA yielded a value of 0.164 (LO 90 = 0.152, HI 90 = 0.176). The acceptable range of 0.06 to 0.10 indicate a poor model fit. The CFI result of 0.755 may be considered an acceptable fit result. Two fit indices are as a result indicative of a satisfactory model fit whereby the RMSEA continue to produce a poor model fit value.

Subsequent multivariate regression analysis models whereby a) witness credibility as unitary construct and b) where the number of times the FSW testified in court was removed from the model, was tested to verify the interaction between witness credibility and self-efficacy. The main effect on the dependent measure of *witness credibility* confirmed the results obtained with SEM above. Witness self-efficacy (WSE) remained the only variable that returned a significant p value

<0.001, thereby concluding that *witness self-efficacy* is the only variable in the proposed model that consistently predict witness credibility.

3.6 DISCUSSION

Introduction of Findings

The aim of the study was to assess witness credibility and self-efficacy perceptions among South African FSW's as expert witnesses and to contrast these against testifying experience, social work experience, post-graduate qualifications, work context and age.

Results from the study contributed to the research for the two central concepts by the following conclusions as deduced from data analysis; a) as expert witnesses, FSW's regard themselves as highly credible witnesses with generous self-efficacy, b) FSW's report high trustworthiness perceptions, followed by the knowledge dimension, c) yet, FSW's lack confidence in the witness role, d) FSW's with more testifying experience, regard themselves as more knowledgeable, trustworthy, credible and effective expert witnesses, e) testimony delivery skills (poise and communication style) consistently appear to predict how knowledgeable, confident and credible the FSW regard themselves to be. Empirical evidence support construct validity of the *witness self-efficacy* concept and measurement scale for use in South Africa. Partial validation of the WCS was determined, however retesting the scale with a larger sample may yield different results.

A) High perceptions of witness credibility and self-efficacy among FSW's

Mean scores for perceptions of *witness credibility* (8.6 out of 10) and *self-efficacy* (4.0 out of 5) indicate that FSW's in the expert witness role regard their testimony presentation as sufficiently convincing and of adequate influence. FSW's do not appear to doubt their ability to deliver effective witness testimony.

This result seem congruent with a sample of professionals whereby the majority have more than eleven years' experience as a social worker, have testified in court on more than eleven occasions and whereby 46.5% of the sampled population hold a Master's degree and 10.9% have a Doctoral degree. However, no statistically significant relationship was detected among post-graduate qualification and perceptions of witness credibility and/or self-efficacy as originally expected. Post-graduate qualifications do not appear to influence subjective perceptions on the central constructs in the models tested.

The pertinent question remains; are the self-rated subjective assessments pertaining witness credibility and self-efficacy as rated by FSW's equally reciprocated by the legal counterparts during testimony presentation? The dearth of South African research on judicial perspectives in relation to the credibility and overall contribution of expert witnesses to legal proceedings severely limit the ability to compare reciprocity.

Members of the International legal fraternity in regards to expert witness testimony indicate a preference for more concrete evidence such as medical forensic science (Wechsler et al., 2015). Generally, International legal professionals do not hold the potential contribution of social scientists' testimony to the settlement of disputes in high esteem; mainly due to the personal prejudices suspected among expert witnesses primarily motivated by financial gain (Edens et al., 2012).

B) As expert witnesses, FSW's indicate high trustworthiness and knowledge perceptions

FSW's present with high scale ratings on the *trustworthiness* dimension of witness credibility (M = 9.3, SD 1.42), followed by high *knowledge* perceptions (M = 8.7, SD 1.05). Ostensibly, trustworthiness is regarded by the sample population as most central element in the expert witness role. This finding is empirically supported by Ziemke and Brodsky (2015), Wechsler, Kehn, Wise and Cramer (2015) and Zipse and Mohla (2014) who argue that *trustworthiness* is the most central element in determinations of credibility amongst witnesses.

Trustworthiness is operationalised inclusive of being *truthful*, *trustworthy*, *honest*, *dependable* and *reliable* (Brodsky et al., 2010). By logic, *trustworthiness* and the inherent assumption of honesty in the witness role includes being impartial in relation to the outcome of the legal dispute and according to Shuman and Greenberg (2003), the foundation of witness credibility as determined by trustworthiness derive from expert witness impartiality.

According to Morris (2018), trustworthiness perceptions are easily ruined when a discrepancy is detected either in the court report and/or the testimony presented in court. Apart from professional oversights, a deficiency of trustworthiness become evident when the expert witness exaggerate professional experience (Schultz, 2014), embellish credentials (Vaughan-Eden, 2008) fail to interview important collateral sources (Schultz, 2014) or neglect professional development in the speciality field (Geldenhuys, 2011).

Knowledge as dimension of witness credibility refer to a *logical*, *wise*, *educated*, *scientific* and *informed* expert witness (Brodsky et al., 2010). Parrott and co-researchers' (2015) manipulation

of witness knowledge levels revealed a paradoxical association with likeability; whereby, witnesses seen to have less knowledge was liked more than witnesses with high knowledge levels. Yet, Neal and colleagues (2012) determined that witnesses who was regarded as both well liked and knowledgeable, was viewed to be highly credible witnesses.

Pornpitakpan as cited by Fuchsberger (2013) opine that the perceived *trustworthiness* and *knowledge* of the witness are the two dimensions with the strongest influence on how credible the witness is viewed when testifying and due to this, these two dimensions are regarded by Pornpitakpan as the most important in the facilitation of cognitive change in people. FSW perceptions in the current study, mirror the above argument by Pornpitakpan.

Under experimental conditions, the *knowledge* and *trustworthiness* factors respectively was strong enough to influence how testimony is received as demonstrated when lawyers succeeded to reduce how trustworthy and knowledgeable the witness appeared, which resulted in an overall diminished assessment of witness credibility (Fuchsberger, 2013). When the knowledge level of the expert was reduced, the overall credibility of the witness was not reduced considerably however, when the witness was seen to have low trustworthiness, the total credibility of the witness was severely reduced (Fuchsberger, 2013).

The former study empirically support *trustworthiness* as such a significant dimension in determinations of overall witness credibility that trustworthiness should perhaps be studied independently from the other three witness credibility dimensions, being; knowledge, likeability and confidence (Fuchsberger, 2013). Even though the sampled population in the current study regard themselves as highest in trustworthiness, this element accounted for only 16% of the total variance on the WCS.

Based on the significant influence that trustworthiness have on perceptions of witness credibility, Fuchsberger (2013) argue that the judiciary absolutely rely on more than just the evidence of the case when contemplating witness testimony presentation. Spellman and Tenney (2010) concur that generally people have a propensity to judge the integrity of others based on aspects that have zero direct relation with their "*actual trustworthiness*" (p. 168).

C) FSW's lack confidence in the witness role

FSW's self-rated witness *confidence* lowest of the four credibility factors and lower than the average mean score recorded for overall witness credibility. A self-rated mean score of 7.8/10

was recorded on the *confidence* dimension, while the mean score for overall witness credibility was 8.5/10.

Available literature pertaining the confidence of social scientists in the courtroom provide plausible explanations for the lower perceptions of confidence held by FSW's as found in the current study. Dvoskin, Guy (2008) and Greeno and co-researchers (2013) along with Morris (2018) report a tendency among practitioners to experience various challenges in the courtroom. Performance challenges of practitioners appear to be triggered by fears concerning the presentation of testimony (Chopora & Hess as cited in Brodsky & Pivovarova, 2016). The potential humiliation for the expert witness should testimony go awry and unwarranted criticism and/or accusations by hostile attorneys (Dvoskin & Guy, 2008, Morris, 2018) appear the root cause of fear and varying degrees of stress, anxiety and nervousness among expert witnesses (Dvoskin & Guy, 2008, Greeno et al., 2013, Morris, 2018, Vaughan-Eden, 2008). Malatji (2012) indicate that South African FSW's experience testifying in court as "*stressful*" (p. 44) and cross-examination by opposing council as simply "*frightening*" (p. 35).

Witness *confidence* as dimension of *witness credibility* refer to witnesses who are self-assured, well-spoken, confident, poised and relaxed (Brodsky et al., 2010). Consideration of the operational understanding of witness *confidence* allude to the theoretical overlap between this dimension and *poise* and *communication style* as defined in the witness self-efficacy construct (Cramer et al., 2010). The overlap is clearly visible with *poise* as an item in witness confidence and a dimension in witness self-efficacy.

Researchers who report on the performance outcomes to be expected from witnesses appear to indicate that generally, practitioners may benefit from enhancing confidence for the expert witness role. It follows therefore that a concerted effort to boost witness perceptions of courtroom confidence may result in the improvement of overall witness credibility for the testifying expert witness.

D) FSW's with more testifying experience, see themselves as more knowledgeable, trustworthy, credible and effective witnesses

In the current study, FSW's who have more courtroom (testifying) experience have a stronger belief in their ability to succeed (witness self-efficacy) as expert witness and view themselves as more knowledgeable, trustworthy and credible.

The above positive relationship between testifying experience and greater self-efficacy support the underlying hypothesis of self-efficacy as originally postulated by Bandura. Bandura and co-

researcher opined that persons who persevere in a difficult task are more likely to overcome their fears and higher self-efficacy tend to reduce fear and anxiety and resultantly enhance the personal ability to cope with situations (Bandura & Adams, 1977). The *witness self-efficacy* concept is largely developed on the self-efficacy hypotheses as proposed by Bandura (Cramer, 2009), and by this logic in the current study, more witness testimony experience should equally reduce testimony anxiety.

Conceivably due to the increased perceptions of witness self-efficacy, knowledge and trustworthiness, more testifying experience should also influence how credible the expert witness and subsequent testimony is finally perceived by the judiciary. This finding is particularly important since trustworthiness and knowledge in the current study and other empirical research are regarded as the strongest elements to affect cognitive persuasion.

The positive association between more testimony experience and higher levels of witness self-efficacy allude to the potential cumulative capacity to boost overall witness credibility. This is due to the underlying assumption that the extent of personal self-efficacy can forecast with some precision, the performance results that could be expected for a given task (Bandura & Adams, 1977). Social learning theories maintain that the personal achievement of a given task represent the most accurate information about how well the individual can be expected to fare at this task in future (Bandura & Adams, 1977). Logically, a FSW that has testified as expert witness once, or several times prior, are more likely to succeed in the witness testimony role on the following occasion.

E) Mastery of testimony delivery skills (poise and communication style) consistently predict how knowledgeable, confident and credible the witness is viewed

According to the findings in the current study, the belief the FSW harbour about their internal ability to succeed at the task specific witness role (witness self-efficacy), forecast perceptions regarding the overall credibility of the expert. This is seen in the positive association between witness self-efficacy and the capacity of the concept to predict how knowledgeable and confident the professional feel in the testifying role and the impact on overall credibility. Thus, greater belief in the ability to deliver witness testimony successfully result in perceptions of greater witness credibility and visa-versa. Data analysis in this study support the above hypothesised directional pathway.

Due to the ability of greater witness self-efficacy (poise and communication style) to forecast enhanced perceptions of knowledge, confidence and subsequently thereto, overall witness

credibility, practitioners may be encouraged to gain mastery over the intricacies associated with testimony delivery skills that affect poise and communication style on the witness stand.

However, as recorded in this study, local FSW's appear to lack confidence in the expert witness role. Hence, even though greater witness self-efficacy seems to predict greater perceptions of confidence and knowledge, local practitioners may not necessarily possess sufficient personal confidence to perform to their potential at this task.

The indication that *witness self-efficacy*, as represented by *poise* and *communication style* is a strong forecaster of perceived witness credibility is supported in literature and International research (Cramer et al., 2011, Cramer et al., 2010). The *confidence* dimension in the original validation study was the strongest factor and accounted for 49.76% of the variance (Brodsky et al., 2010). Cramer, DeCoster, Harris, Brodsky and Fletcher (2011) regard confidence in the witness role sufficiently important that a confidence-credibility model was tested based on the proposition that a clear and positive association exist between confidence levels and perceptions of credibility.

FSW efforts to improve and augment testimony delivery skills that affect poise and communication style on the witness stand as well as witness confidence may produce a cumulative result whereby the witness is perceived as more credible when testifying. This finding is particularly useful for practitioners who seek to improve perceptions of inherent integrity on the stand.

F) The usefulness of the WSES in the South African context

Construct validity analysis of the Witness Self-Efficacy Scale in the current study appear to support the accuracy and usefulness of the instrument due to good overall internal consistency, each of the 18 items loaded significantly and above the .40 level and the dimensions as proposed by developers was identified and explained 59.68% of the total variance. Additionally, two out of three model fit indices returned an acceptable model fit result.

The instrument may be used by an expert witness as self-preparation tool and also as observational assessment instrument to facilitate constructive feedback to trainees during mock court sessions. This result is particularly encouraging as a first attempt to validate a tool to assist in the preparation of expert witnesses for court proceedings.

G) Limited usefulness of the WCS in the South African context

Results in the current study returned a high overall internal consistency for the WCS and each of the 20 items loaded significantly and above the .30 level. The four-factor model as proposed by scale developers was identified and sub-scales also correlated significantly.

However, multicollinearity was detected among the *trustworthiness* and *likeability* dimensions since several cross loadings occurred (Weston & Gore, 2006). Consequently, data analysis revealed that local FSW's appear to associate being well-mannered and respectful of court proceedings with the trustworthiness of the witness, instead of likeability as proposed by the concept developers. Due to the inability of construct validation in the current study to properly distinguish between trustworthiness and likeability, the researcher recommends that scale validation be repeated with a larger sample size.

3.7 CONCLUSIONS

The findings discussed above illuminate the two central concepts of credibility and self-efficacy as perceived by local FSW's who serve the court as expert witnesses. This study represents the first attempt to address this gap in literature from a South African forensic social work perspective.

The conclusions are significant since the insights gained pertaining the views of FSW's about the expert witness task may be harnessed to develop strategies to enhance personal perceptions about their ability to succeed, potentially improve the persuasiveness of witness testimony through the improvement of overall witness credibility and in so doing, fortify the overall contribution of the expert witness to the settlement of legal disputes.

As a starting point, this study sought to encourage ongoing discourse on the measurable efficacy and preparation of the expert witness since issues such as credibility and self-efficacy are regarded as central to the expected performance outcomes of FSW's and reputation of this practice speciality within South Africa.

Conclusions proffered in the current study encourage the ongoing professional development of perceptions of witness trustworthiness, knowledge, confidence, likeability (witness credibility) (Brodsky et al., 2010) and accompanying testimony delivery skills as it relates to poise and communication style (witness self-efficacy) (Cramer, 2009). The study encourages a specific effort to improve witness confidence and witness self-efficacy to boost the persuasiveness and overall efficacy of the witness testimony.

Furthermore, FSW's are encouraged to welcome opportunities to present witness testimony since findings in the current study suggest that greater experience in this role improve the efficacy of the witness on the stand.

3.8 RECOMMENDATIONS

- Even though the self-assessed efficacy (credibility and self-efficacy) of local FSW's in the witness role was estimated in the current study, no comparative studies are available to test reciprocity thereof from a judicial perspective. As such, very little is known about whether members of the judiciary perceive the expert witness as similarly credible and efficacious as recorded in this study.

  Henceforth, the researcher recommends that a survey of credibility and self-efficacy be replicated by utilising attorneys or judges to rate the expert witness during testimony performance. For this purpose, the Observed Witness Efficacy Scale (Cramer et al., 2013) as developed by Cramer and colleagues and the Witness Credibility Scale (Brodsky et al., 2010) developed by Brodsky and co-researchers can be utilised to facilitate objective measurement. Combining the former mentioned instruments with qualitative research methodologies will enable comparative statistics with the findings in the current study and thereby enable researchers to test congruence among professionals. Findings from a comparative analysis may illuminate on added measures which may be implemented to contribute to the efficacy of witnesses in their endeavours to serve the court.

- As formerly established and underscored in the current study, perceptions of witness trustworthiness is fundamental to the eventual efficacy of the expert witness in this context specific role positioned within the judicial system. The researcher recommends the development of specialised post-graduate witness testimony training material that assist professionals in witness preparation.

  Training material could elucidate on strategies to handle accountability-type cross examination questions, the consequences of discrepancies detected in work product, strategies that inoculate the witness against bias accusations, efforts that prove transparency of due process, how to manage instances when errors or omissions are exposed on the stand and the elements of integrity that are likely to impede trustworthiness perceptions.

- The researcher recommends that a code of ethics that delineate the duties and responsibilities of the FSW and their primary duty as expert witness be formalised by the South African Council for Social Service Professionals (SACSSP). An ethical code is necessary to minimize the potential blurring of ethical boundaries in the professional relationship between the expert witness, the court and the opposing parties to the legal dispute. The matter of witness bias may be addressed by a robust ethical code and potentially reduce the allegations and accusations of witness bias so often levelled against testifying professionals.

  Likewise, an ethical code that establish clear guidelines for professionals may facilitate higher confidence levels among FSW's in this role. Confidence for witness testimony among local FSW's could benefit from measures that provide an enhanced sense of safety when the professional is required to testify in court.

- The current study confirmed the importance of trustworthiness and knowledge perceptions as foundational to the expert witness role in the context of legal proceedings. Fuchsberger (2013) concur with the former argument as was substantially proven under experimental study conditions. Hence, the researcher recommend FSW's invest in their ongoing professional development.

  Within the credibility paradigm, a knowledgeable witness is logical, wise, educated, scientific and informed (Brodsky et al., 2010). Knowledge is central to the forensic practice speciality field and the foundational reliability that support the evidence determine the overall veracity thereof. Fouché and Fouché (2015) concur when quoting Judge JA Willis as stated in the Supreme Court of Appeal case of De Sousa v The State 2014 where this issue was highlighted; forensic social work conclusions must be supported by scientific evidence.

- The demonstration of witness confidence is essential to facilitate testimony presentation of sufficient influence and confidence is empirically regarded a significant forecaster of how credible the expert witness is likely to appear (Cramer et al., 2011, Spellman & Tenney, 2010, Slovenko, 1999). Clearly, appearances of witness confidence are important to create a credible impression during witness testimony.

Alas, FSW's in the current study seem to lack witness confidence. Greeno (2013) and co-researchers argue that often the insecurities internalised by the professional is what cause some to undermine their own respectability in the courtroom.

The researcher recommends further studies that may identify confidence enhancement strategies that can assist professionals in witness preparation. Improved witness confidence according to the theories proposed in this study would improve credibility perceptions of the expert. An experimental study on confidence levels that maximise perceptions of overall credibility indicate that moderate confidence levels provide the best desired results, however researchers caution that appropriate confidence levels may vary according to the different types of legal disputes (Cramer et al., 2011).

According to literature, strategies to mitigate courtroom anxiety may include; witness preparedness, putting effort into drafting a robust court report, reliance on peer supervision to identify professional blind spots and familiarisation with courtroom decorum and particularly the adversarial nature of cross-examination (Greeno et al., 2013). Lywan and Friedman (2015) recommend witness preparation with mock court sessions to develop the ability of witnesses to speak with confidence. According to Lywan and colleague (2015), the mock court sessions teach trainees to maintain emotional control, the constructive and concrete feedback help them improve and students describe this experience as "*confidence building in the presence of supportive colleagues*" (Lywan & Friedman, 2015, p. 178).

Bandura and Adams (1977) argue that people draw personal confidence information from four areas, being; a) tasks personally accomplished successfully, b) seeing how others succeed in a task, c) being told by others that you have the ability to succeed and d) the information the person believes about the self when they experience anxiety or fears when under pressure.

The witness testimony task can evoke anxiety. However, according to Bandura and Adams (1977), an actor about to perform in a play may experience anxiety and nervousness just before the show is about to start, yet once the actor is on the stage and the play starts, the anxiety and nervousness disappear. The point being that the actor will ascribe the nervous tension and anxiety to the usual experiences of similar performance situations instead of attributing the anxiety experienced to personal incompetence to

perform well in the play (Bandura & Adams, 1977) and likewise, seasoned expert witnesses should know not to internalise feelings of incompetence due to temporary anxiety. Hence, a paradigm shift is required to recognise that some anxiety and nervousness regarding witness testimony is perfectly normal and may heighten the senses necessary to deliver a great performance.

- A sound and empirically validated theoretical basis in former research and in the current study support the capacity of witness self-efficacy to impact on the self-rated perceptions of knowledge, confidence and overall credibility of the FSW as expert witness (Cramer et al., 2011, Cramer et al., 2010). The researcher recommend that future studies develop specialised post-graduate training material to assist practitioners in the honing of testimony delivery skills as it relates to the aspects that affect poise and communication style appropriate for this context specific task.

  Poise and communication style refer to the extent of emotional control displayed during testimony and verbal and non-verbal communication inclusive of witness demeanour and all the idiosyncratic mannerisms the judiciary will see during testimony, i.e. facial expressions, tone of voice, pace of speech, posture, eye contact, attitude and clothing.

  Witnesses with poor delivery skills may present with extreme nervousness, a high pitched tone of voice, speaking too softly, use too many hand gestures, cannot explain concepts in understandable language, may forget pertinent information, seem confused, be too boring, not make eye contact, slouch in the witness box or arrive to court with inappropriate clothing (Barker & Branson, 1999, Schultz, 2014, Vaughan-Eden, 2008). Ostensibly, as emphasized in the current study, improvements in witness self-efficacy as represented by poise and communication style have the ability to enhance credibility perceptions of witnesses and the subsequent evidence presented.

- Finally, the researcher recommends that the study be replicated with a larger sample and construct validity verified for both measurement instruments. The WSES indicate usefulness for the South African context and future studies may undertake exploratory factor analysis for the WCS to determine the variables associated with credibility from a South African perspective. The measurement instruments may be particularly helpful as a self-assessment aid for witnesses about to present testimony and the training of professionals.

3.9 REFERENCES

Artz, L., Burton, P., Leoschut, L., Ward, C. L., & Lloyd, S. (2016). *Sexual abuse of children and adolescents in South Africa: Forms, extent and circumstances*.

Bandura, A., & Adams, N. E. (1977). Analysis of Self-Efficacy Theory of Behavioral Change. *Cognitive Therapy and Research*, *1*(4), 287–310.

Barker, R. L., & Branson, D. M. (1999). *Forensic social work: Legal aspects of Professional Practice* (2nd ed.). Haworth Press.

Blackwell, S., & Seymour, F. (2015). Expert Evidence and Jurors' Views on Expert Witnesses. *Psychiatry, Psychology and Law*, *22*(5), 673–681. https://doi.org/10.1080/13218719.2015.1063181

Boyle, J. A., Brodsky, S. L., Dautovich, N. D., & Gaskill, C. (2014). *Vocal Pitch Manipulation and Credibility in the Courtroom: Differences Between Male and Female Expert Witnesses*. The University of Alabama.

Brits, S. (2015). *Factors contributing to the conviction rates of child sexual abuse cases*. University of North West.

Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The Witness Credibility Scale: An Outcome Measure for Expert Witness Research. *Behavioral Sciences and the Law*, *28*(January), 892–907. https://doi.org/10.1002/bsl

Brodsky, S. L., & Pivovarova, E. (2016). *The Credibility of Witnesses*. *The Witness Stand*. New York. https://doi.org/10.1007/978-1-4939-2077-8

Brodsky, S. L., & Terrell, J. J. (2011). Testifying About Mitigation: When Social Workers and Other Mental Health Professionals Face Aggressive Cross-Examination. *Journal of Forensic Social Work*, *1*, 73–81.

Brodsky, S. L., & Wilson, J. K. (2016). Worst Expert Testimony Ever. *Psychological Injury and Law*, (June), 272–274. https://doi.org/10.1007/s12207-016-9261-7

Cramer, R. J. (2009). *Witness Self-Efficacy: Development and Validation of the Construct*. University of Alabama.

Cramer, R. J., DeCoster, J., Harris, P. B., Fletcher, L. M., & Brodsky, S. L. (2011). A confidence-credibility model of expert witness persuasion: Mediating effects and implications for trial consultation. *Consulting Psychology Journal: Practice and Research*, *63*(2), 129–137. https://doi.org/10.1037/a0024591

Cramer, R. J., Neal, T. M. S., Decoster, J., & Brodsky, S. L. (2010). Witness Self-Efficacy: Development and Validation of the Construct. *Behavioral Sciences and the Law*, *28*(August), 784–800. https://doi.org/10.1002/bsl

Cramer, R., Parrott, C. T., Gardner, B., Stroud, C., Boccaccini, M., & Griffin, M. (2014). An Exploratory Study of Meta-Factors of Expert Witness Persuasion. *Journal of Individual Differences*, *35*(1), 1–11.

Daftary-Kapur, T., O'Connor, M., & Mechanic, M. (2014). Gender-Intrusive Questioning : A Survey of Expert Witnesses. *Behavioral Sciences and the Law*, *32*, 180–194. https://doi.org/10.1002/bsl

Davis, G. G. (2017). Expert witness testimony : Overview and recommendations based on a professional experience. *Journal of Forensic Radiology and Imaging*, *8*(January), 9–12. https://doi.org/10.1016/j.jofri.2017.01.003

Dial, A. R., & Ellis, L. (2010). Building a believable case through credible witness testimony. *The Brief*, 33–38.

Dlamini, B. (2016). *Call for comments on regulations relating to the registration of a speciality in forensic social work*. Pretoria: Government Gazette.

Dvoskin, J. A., & Guy, L. S. (2008). On Being an Expert Witness: It ' s not about you. *Psychiatry, Psychology and Law*, *15*(July), 202–212. https://doi.org/10.1080/13218710802014451

Edens, J. F., Smith, S. T., Magyar, M. S., Mullen, K., Pitta, A., & Petrila, J. (2012). "Hired Guns,""Charlatans," and Their "Voodoo Psychobabble": Case Law References to Various Forms of Perceived Bias Among Mental Health Expert Witnesses. *American Psychological Association*, *9*(3), 259–271. https://doi.org/10.1037/a0028264

Fahmy, W., Snook, B., & McCardle, M. (2018). *Muslim Garments and Victim Credibility Assessment*. Memorial University of Newfoundland.

Ferreres, A. R. (2014). Ethical Issues of Expert Witness Testimony. *World Journal of Surgery*, *38*(May), 1644–1649. https://doi.org/10.1007/s00268-014-2641-9

Field, A. (2005). Factor Analysis Using SPSS. In *Discovering statistics using SPSS* (2nd ed., pp. 1–4). London: SAGE Publications, Inc.

Filho, D. B. F., Paranhos, R., De Rocha, E., Batista, M., Da Silva, J. A., D. Santos, M. L. W., & Marino, J. G. (2013). When is statistical significance not significant? *Brazilian Political Science Review*, *7*(1), 31–55.

Fischer, D. G., & Fick, C. (1993). Measuring Social Desirability: Short Forms of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurement*, *53*, 417–423.

Fouché, A., & Fouché, F. (2015). Requirements for evidence by a forensic social worker as set by the Supreme Court of Appeal. *South African Professional Society on the Abuse of Children*, *16*(2), 105–115.

Franklin, K. (2012). Bow Ties: The Simple Soluton to Expert Witness Credibility. Retrieved

September 15, 2018, from https://www.psychologytoday.com/intl/blog/witness/201206/bos-ties-the-simple-solution-expert-witness-credibility?amp

Fuchsberger, A. (2013). *The (Un)Credible Expert Witness: The Importance of Trustworthiness and Expertise in Expert Witness Testimony*. University of Kansas.

Geldenhuys, K. (2011, June). The role forensic social workers in the SAPS. *SA Media - The University of the Free State*, p. 38.

Greenberg, B., & Weiss, P. (2012). Validation of a Short Form of the Marlowe-Crowne for Use with Law Enforcement Personnel. *Journal Police Crim Psych*, *27*, 123–128.

Greeno, E. J., Bright, C. L., & Rozeff, L. (2013). Lessons from the courtroom: Perspectives from child welfare attorneys and supervisors. *Children and Youth Services Review*, *35*(9), 1618–1624. https://doi.org/10.1016/j.childyouth.2013.06.015

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence Based Nursing*, *18*(3), 66–67. Retrieved from http://ebn.bmj.com/

Herman, S. (2010). The Role of Corroborative Evidence in Child Sexual Abuse Evaluations, *212*(July), 189–212.

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *The Electronic Journal of Business Research Methods*, *6*(1), 53–60. Retrieved from www.ejbrm.com

Hox, J. J., & Bechger, T. M. (1995). An Introduction to Structural Equation Modeling. *Family Science Review*, *11*, 354–373.

Huisman, B. (2018, November 26). SA's first sex offences court. *City Press*, pp. 1–2. Retrieved from https://city-press.news24.com/News/sas-first-sex-offences-court-20181124

Joubert, M., & van Wyk, C. (2014). Social work forensic reports in South African criminal courts: Inevitability in the quest for justice. *Social Work/Maatskaplike Werk*, *50(4)*(3), 485–503.

Jurs, A. W. (2016). Expert Prevalence , Persuasion and Price : What Trial Participants Really Think About Experts. *Indiana Law Journal*, *91*(2), 352–391.

Klettke, B., Graesser, A. C., & Powell, M. B. (2010). Expert Testimony in Child Sexual Abuse Cases: The Effects of Evidence, Coherence and Credentials on Juror Decision Making. *Applied Cognitive Psychology*, *24*(March 2009), 481–494. https://doi.org/10.1002/acp

Lani, J. (2010). Conduct and Interpret a Spearman Rank Correlation. Retrieved August 15, 2019, from http://www.statisticssolutions.com/spearman-rank-correlation/

Larson, B. A., & Brodsky, S. L. (2010). When Cross-Examination Offends: How Men and Women Assess Intrusive Questioning of Male and Female Expert Witnesses. *Journal of Applied Social Psychology*, *40*(4), 811–830.

Larson, B. A., & Brodsky, S. L. (2014). Assertive Women as Expert Witnesses: A Study of

Assertive and Defensive Responses in Male and Female Experts. *Behavioral Sciences and the Law*, *32*(April), 149–163. https://doi.org/10.1002/bsl

Malatji, H. Q. (2012). *The Social worker, as an expert witness in sexual offences committed against children*. North-West University.

Meintjies-Van der Walt, L. (2003). The proof of the pudding: The presentation and proof of expert evidence in South Africa. *Journal of African Law*, *47*, 88–106. https://doi.org/10.1017/S0021855303001998

Meintjies-Van der Walt, L. (2006). Expert evidence: Recommendations for future research. *Faculty of Law at Rodes University*, *3*, 276–302.

Morris, C. A. (2018). In Pursuit of Highly Credible Communication: What Nurses Need to Know Before They Testify. *The Journal of Legal Nurse Consulting*, *29*(3), 9–16.

Morrison, B. R., Porter, L. L., & Fraser, I. H. (2007). The Role of Demeanour in Assessing the Credibility of Witnesses. *The Avocates' Quarterly*, *33*, 170–192.

Nagle, J. E., & Brodsky, S. L. (2012). Good Witnesses Don't Smile (Much). *The Jury Expert*, *24*(5), 18–20.

Nagle, J. E., Brodsky, S. L., & Weeter, K. (2014). Gender, Smiling, and Witness Credibility in Actual Trials. *Behavioral Sciences and the Law*, *32*(March), 195–206. https://doi.org/10.1002/bsl

Neal, T. M. S. (2014). Women as Expert Witnesses : A Review of the Literature. *Behavioral Sciences and the Law*, *32*, 164–179. https://doi.org/10.1002/bsl

Neal, T. M. S., Guadagno, R. E., Eno, C. A., & Brodsky, S. L. (2012). Warmth and Competence on the Witness Stand: Implications for the Credibility of Male and Female Expert Witnesses. *The Journal of the American Academy of Psychiatry and the Law*, *40*, 488–497.

Neal, T, & Kovera, M. B. (2015). Harnessing the Science of Persuasion for Expert Witness Testimony. In M. B. Kovera (Ed.), *The Science of Persuasion: Practical Insights from Research on Expert Witness Effectiveness and Jury Decision-Making*. New Orleans: Hyatt Regency.

O'Keefe, D. J. (2004). Trends and Prospects in Persuasion Theory and Research. In *Readings in persuasion, social influence and compliance gaining* (pp. 31–43). Boston: Pearson/Allyn and Bacon.

Owen, A., Marshall, E., Green, D., Croft, T., Davis, S., Joiner, S., … Matthews, J. (2019). Spearman's correlation. Retrieved August 15, 2019, from www.statstutor.ac.uk%3Eresources%3Euploaded%3Espearmans

Parrott, C. T., Neal, T. M. S., Wilson, J. K., & Brodsky, S. L. (2015). Differences in Expert Witness Knowledge : Do Mock Jurors Notice and Does It Matter? *Publications of Affiliated Faculty:*

Nebraska Public Policy Center, *43*(1), 69–81.

RICS Spokesperson. (2016, October 31). The dependable expert witness. *Cape Times*. Retrieved from https://www.pressreader.com/south-africa/cape-times/20161031/282260960014866

Rossouw, A. (2010). *Confirmatory Factor Analysis of the Collective Self Esteem Scale*. University of Pretoria.

Rubin, A., & Babbie, E. (2016). *Essential research methods for social work* (4th ed.). Boston: Cengage Learning.

Sadan, M., Dikweni, L., & Cassiem, S. (2001). Pilot Assessment: The Sexual Offences Court in Wynberg & Cape Town and related services. *Idasa*, 1–59.

Schultz, L. (2014). *The Social Worker as an Expert Witness in Suspected Child Abuse Cases: a primer for beginners*. *Institute for Psychological Therapies*. Morgantown.

Shuman, D. W., & Greenberg, S. A. (2003). The expert witness, the adversary system, and the voice of reason: Reconciling impartiality and advocacy. *Professional Psychology: Research and Practice*, *34*(3), 219–224. https://doi.org/10.1037/0735-7028.34.3.219

Slovenko, R. (1999). Testifying with Confidence. *J Am Acad Psychiatry Law*, *27*(1), 127–131.

Spellman, B., & Tenney, E. (2010). Credible testimony in and out of court. *Psychonomic Bulletin & Review*, *17*(168–173).

Taber, K. (2018). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Res Sci Edu*, (48), 1273–1296.

Trochim, W. M. (2006). Quantitative Research: Reliability and Validity. Retrieved July 22, 2019, from www.socialresearchmethods.net/tutorial/Colosi/lcolosi2.htm

Van de Mortel, T. F. (2008). Faking it: social desirability response bias in self-report research. *Australian Journal of Advanced Nursing*, *25*(4), 40–47.

Van der Merwe, K. (2015, June). The importance of developing expert witnesses within the SAPS. *Servamus*, pp. 74–75.

Van Westrhenen, N., Fritz, E., Vermeer, A., & Kleber, R. (2017). Reflections of social workers on working with abused children in South Africa. *South African Professional Society on the Abuse of Children*, *18*(1), 1–10.

Vaughan-Eden, V. (2008). Key Points to Testifying in Child Abuse Cases: Be Prepared, Be Proactive, and Be Professional. *APSAC Advisor*, 23–26.

Wachtel, M. (2017). Being prepared on the witness stand: It's more important than what the expert is wearing. Retrieved August 1, 2018, from https://www.maxwachtel.com/blog-1/2017/10/31/being-prepared-on-the-witness-stand-its-more-important-than-what-the-expert-is-wearing

Walliman, N. (2005). *Your Research Project* (2nd ed.). London: SAGE Publications, Inc.

Wechsler, H. J., Kehn, A., Wise, R. A., & Cramer, R. J. (2015). Attorney beliefs concerning scientific evidence and expert witness credibility. *International Journal of Law and Psychiatry*, *41*, 58–66. https://doi.org/10.1016/j.ijlp.2015.03.008

Weston, R., & Gore, P. (2006). A Brief Guide to Structural Equation Modeling. *THE COUNSELING PSYCHOLOGIST*, *34*(5), 719–751.

Wilcox, A. M., & Nicdaeid, N. (2018). Jurors' perceptions of forensic science expert witnesses : Experience, qualifications, testimony style and credibility. *Forensic Science International*, *291*, 100–108. https://doi.org/10.1016/j.forsciint.2018.07.030

Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Journal of Emergency Primary Health Care*, *8*(3), 1–13.

Ziemke, M. H., & Brodsky, S. L. (2015). Unloading the hired gun : Inoculation effects in expert witness testimony. *International Journal of Law and Psychiatry*, *42–43*, 91–97. https://doi.org/10.1016/j.ijlp.2015.08.012

Zipse, D. W., & Mohla, D. C. (2014). Expert witnesses: The basics. *Record of Conference Papers - Annual Petroleum and Chemical Industry Conference*, 9–18. https://doi.org/10.1109/PCICon.2014.6961881

SECTION D: FINAL CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

Final conclusions are extrapolated based on data analysis outcomes and relevant research material and documented in this section. This study is titled:

The role of qualification, experience and work context in perceptions of credibility and self-efficacy amongst forensic social workers as expert witnesses.

Research questions addressed by testing three identified hypotheses according to the cross-section relation-correlation design are:

- What are the perceptions of witness credibility and self-efficacy amongst FSW's as expert witnesses in the criminal courts?
- Is there a relationship between years' experience as a social worker, the number of times the professional testified in court, age, post-graduate qualification or work context and the witness credibility and self-efficacy perceptions of FSW's?
- How trustworthy, knowledgeable, confident and likeable does FSW's perceive themselves to be as expert witnesses?
- Is there a relationship between witness self-efficacy as represented by poise and communication style and witness credibility as perceived by the FSW?

The findings of this study suggest that forensic social workers regard themselves as highly credible witnesses with a sufficient degree of self-efficacy. A relationship between testifying experience, trustworthiness, knowledge, credibility and self-efficacy was detected. No statistically significant relationship was detected among work context, post graduate qualifications or age and perceptions of credibility or self-efficacy. Practitioners regard themselves as highly trustworthy, followed by knowledge, likeable and self-rated lowest on the confidence dimension of credibility. Witness self-efficacy as represented by poise and communication style consistently appear to predict how knowledgeable, confident and credible the witness is perceived. Both central constructs of witness credibility and self-efficacy appear indispensable and are equally required to facilitate effective expert witness testimony. Forty-six respondents (45.54%) rated below the mean recorded for social desirability prejudice and the remaining fifty-five (54.46%) respondents scored higher than 9.66 out of 13 on the SDS. It is researchers' view that the Social Desirability

Scale results represent a realistic image pertaining the perceptions recorded for witness credibility and self-efficacy due to; a) only approximately half of the sample rated appeal bias in excess of the mean and b) the presence of social appeal bias can be expected in the contextual environment where expert witnesses want to be approved of by the audience.

4.2 LIMITATIONS OF THE STUDY

This study sought to investigate the perceptions of witness credibility and self-efficacy held by South African forensic social workers in the context specific role of an expert witness that testify in the criminal court. The potential inter-corollary relationships between the two main concepts and variables, including; how many years' experience the witness have as a social worker, the number of times testified in court, post-graduate education, work context and age was investigated to determine their affect size on the dependent variables. Additionally, the researcher investigated the construct validity of the Witness Credibility and Witness Self-Efficacy Scales for application in the South African context. Results obtained from the above analysis should be interpreted in conjunction with the study limitations discussed hereunder.

The study was realised with the participation of one-hundred-and-one (n = 101) forensic social workers. In terms of quantitative research studies, the sample size is considered small, however the size of the forensic social work population in South Africa is currently undefined. Confirmatory factor analysis (CFA) generally require sample sizes between 100 and 200 (Hair, Anderson & Tatham as cited in Williams et al., 2010). Analysis with structural equation modelling (SEM) require a minimum sample size of 200 units (Weston & Gore, 2006). Presumably, according to these parameters the sample size in this study may have compromised data conclusions reached with SEM. In addition, analysists report the sensitivity of the chi-square test to sample size variations (Hooper et al., 2008). As recommend by Wheaton and colleagues, the normed chi-square test was divided by Degrees of Freedom in order to obtain a more reliable coefficient (as cited in Hooper et al., 2008).

Validity testing of measurement instruments comprise of three categories, namely construct, content and criterion validity (Heale & Twycross, 2015). In this study, construct validity was attempted for the WCS and WSES. Content and criterion validity was not assessed within the scope of this project.

The on-line survey instrument required that forensic social workers self-report their perceptions held about witness credibility and self-efficacy. Researchers argue that social desirability bias is a phenomenon commonly found in research where respondents self-report, and can be described

as the tendency of people to make themselves appear more appealing than they truly are (Van de Mortel, 2008). As a result, correlations found among dependent and independent variables may be false or become distorted, thereby failing to measure the intended constructs properly (Van de Mortel, 2008). To mitigate this risk, the Marlowe-Crowne Social Desirability Scale was included as a means to measure socially desirable responses (Fischer & Fick, 1993). To ensure the validity of scores obtained on the Witness Credibility and Witness Self-efficacy Scales, the process of regression analysis was utilised to identify tendencies of social appeal prejudice in the data set (Greenberg & Weiss, 2012).

Demographic information pertaining the sample characteristics revealed that 89.1% of the respondents had more than eleven years' experience as a social worker and 59.4% testified more than eleven times as an expert witness as can be expected from forensic social workers. These percentages indicate that the sample comprised of forensic social workers with extensive experience in the field. Similarly, high instances of post-graduate qualifications was reported; specifically 46.5% of respondents held a Master's degree and 10.9% held a Doctoral qualification, which combined account for the majority (57.4%) of responders to hold a post-graduate qualification. The high mean scores realised on the WCS, 8.58 out of 10 (M = 8.58, SD 1.05) and WSES 4.02 out of 5 (M = 4.02, SD 0.55) support this tendency in the demographic data. It should be noted that a sample representative of less experienced practitioners and less post-graduate training may produce different results than was found in this study.

The research investigated correlations between and within groups as specified by the three hypotheses identified. Positive correlations with statistical significance was subjected to structural equation modelling and regression analysis in order to investigate the predictive pathways further. Although strong correlations between and within groups was detected, the researcher cannot stipulate that either the constructs, latent variables or subsequent covariance's cause a change in the other (Weston & Gore, 2006). Causality in social science is reliant on experimental and longitudinal methodologies designed for this purpose. Hence, in this study the directional pathways hypothesised depend on the reliability of the underlying theory that support the witness credibility and self-efficacy constructs.

4.3 FURTHER CONCLUSIONS AND RECOMMENDATIONS

Consideration of the available research literature on the expert witness discourse and the conclusions drawn throughout this study, the researcher propose that efficacy of testimony be conceptualised as depicted in figure 11.

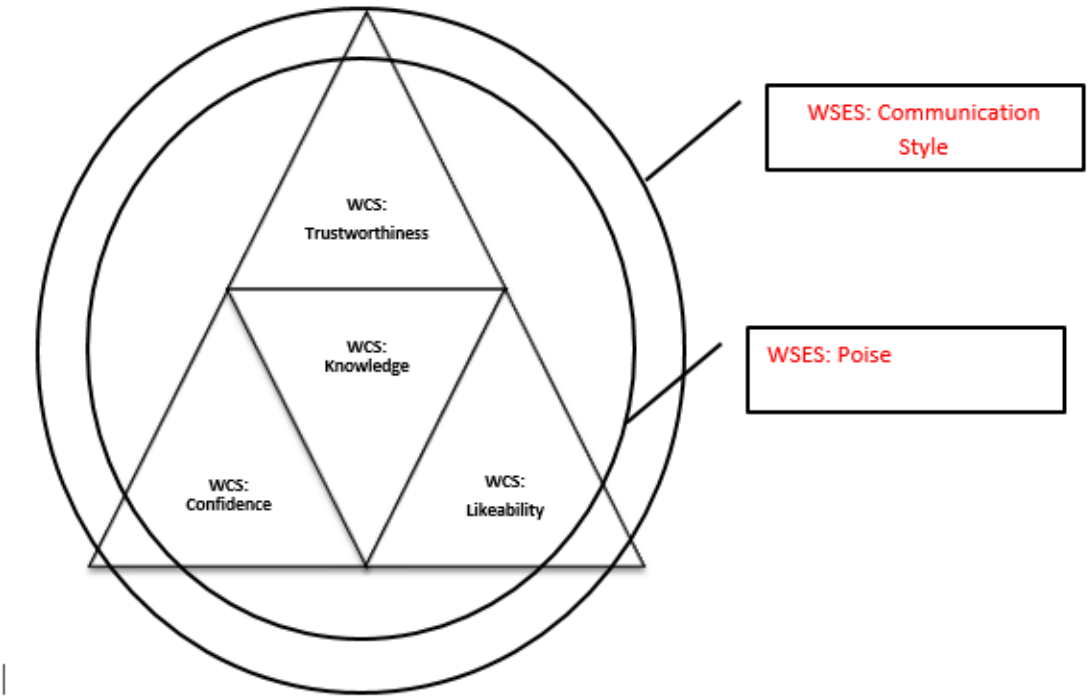


Figure 11: Credentials of witness credibility

According to the above image, the writer suggest the four dimensions of witness credibility (Brodsky et al., 2010) and both facets of self-efficacy (Cramer et al., 2010) are prerequisites for effective testimony in court.

Trustworthiness appear the most important dimension for expert witnesses (Fuchsberger, 2013, Wechsler et al., 2015, Ziemke & Brodsky, 2015, Zipse & Mohla, 2014) and must be supported by a sound scientific knowledge base (Dlamini, 2016, Fouché & Fouché, 2015), supplemented by moderate confidence (Cramer et al., 2011) levels and a sufficient measure of likeability (Brodsky et al., 2010).

During the testimony performance, evidence suggest that perceptions of credibility are augmented by being in full control of emotional composure (Becker, 2016, Davis, 2017, Morris, 2018, Schultz, 2014, Vaughan-Eden, 2008) as maintained with testimony delivery skills associated with poise (Cramer et al., 2010), conveyed by a professional verbal and non-verbal communication style that enable the education of the judiciary in simple language (Barker & Branson, 1999, Davis, 2017, Dvoskin & Guy, 2008, Jurs, 2016, Meintjies-Van der Walt, 2003, Neal & Kovera, 2015, Schultz, 2014, Wilcox & Nicdaeid, 2018, Zipse & Mohla, 2014).

Therefore, the writer propose that the six dimensions operate with synchronicity to facilitate varying degrees of perceived credibility and self-efficacy. Empirical evidence from International researchers and findings in this study suggest that sufficient variation in either of the six dimensions have the potential to influence perceptions of efficacy in the witness role.

Resultantly, it is recommended that future researchers expand on this concept to validate the conclusions drawn herein. The death of indigenous research on these concepts limit the ability to compare findings and additional studies may prove worthwhile to address these gaps from a South African perspective.

First, it is recommended that practitioners present forensic investigation cases to a panel of professionals that include at least one individual with a legal background, to probe the forensic social worker on all the issue pertaining the case. This process may highlight pertinent concerns that may arise during court proceedings, aid in the preparation of the witness for court and potentially enhance the confidence level of the practitioner prior to the court appearance. Simulated 'cross-examination' of the practitioner may also result in constructive feedback and thereby facilitate learning opportunities for future cases.

Even though a post-graduate qualification or further training did not reveal a statistically significant relationship with perceptions of credibility or self-efficacy, evidence support the necessity of knowledge to ensure the efficacy and corroborative value of testimony (Brodsky et al., 2010). Hence, practitioners may consider subscriptions to professional peer reviewed journals to remain abreast of the latest research in the forensic practice speciality (Geldenhuys, 2011).

Finally, subsequent researchers may consider the development of guidelines that assist social scientists to cope with cross-examination by the defence attorney and particularly measures to deal with the strategies utilised by attorneys to diminish witness credibility.

4.4 REFERENCES

Barker, R. L., & Branson, D. M. (1999). *Forensic social work: Legal aspects of Professional Practice* (2nd ed.). Haworth Press.

Becker, D. (2016). Stan Brodsky and Tom Gutheil: On expert expert witnesses. Retrieved March 15, 2019, from https://blog.apabooks.org/2016/01/29/stan-brodsky-and-tom-gutheil-on-expert-expert-witnesses/

Brodsky, S. L., Griffin, M. P., & Cramer, R. J. (2010). The Witness Credibility Scale: An Outcome

Measure for Expert Witness Research. *Behavioral Sciences and the Law*, *28*, 892–907.

Cramer, R. J., DeCoster, J., Harris, P. B., Fletcher, L. M., & Brodsky, S. L. (2011). A confidence-credibility model of expert witness persuasion: Mediating effects and implications for trial consultation. *Consulting Psychology Journal: Practice and Research*, *63*(2), 129–137. https://doi.org/10.1037/a0024591

Cramer, R. J., Neal, T. M. S., Decoster, J., & Brodsky, S. L. (2010). Witness Self-Efficacy: Development and Validation of the Construct. *Behavioral Sciences and the Law*, *28*(August), 784–800. https://doi.org/10.1002/bsl

Davis, G. G. (2017). Expert witness testimony : Overview and recommendations based on a professional experience. *Journal of Forensic Radiology and Imaging*, *8*(January), 9–12. https://doi.org/10.1016/j.jofri.2017.01.003

Dvoskin, J. A., & Guy, L. S. (2008). On Being an Expert Witness: It ' s not about you. *Psychiatry, Psychology and Law*, *15*(July), 202–212. https://doi.org/10.1080/13218710802014451

Fischer, D. G., & Fick, C. (1993). Measuring Social Desirability: Short Forms of the Marlowe-Crowne Social Desirability Scale. *Educational and Psychological Measurement*, *53*, 417–423.

Fuchsberger, A. (2013). *The (Un)Credible Expert Witness: The Importance of Trustworthiness and Expertise in Expert Witness Testimony*. University of Kansas.

Geldenhuys, K. (2011, June). The role forensic social workers in the SAPS. *SA Media - The University of the Free State*, p. 38.

Greenberg, B., & Weiss, P. (2012). Validation of a Short Form of the Marlowe-Crowne for Use with Law Enforcement Personnel. *Journal Police Crim Psych*, *27*, 123–128.

Heale, R., & Twycross, A. (2015). Validity and reliability in quantitative studies. *Evidence Based Nursing*, *18*(3), 66–67. Retrieved from http://ebn.bmj.com/

Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural Equation Modelling: Guidelines for Determining Model Fit. *The Electronic Journal of Business Research Methods*, *6*(1), 53–60. Retrieved from www.ejbrm.com

Jurs, A. W. (2016). Expert Prevalence , Persuasion and Price : What Trial Participants Really

Think About Experts. *Indiana Law Journal*, *91*(2), 352–391.

Meintjies-Van der Walt, L. (2003). The proof of the pudding: The presentation and proof of expert evidence in South Africa. *Journal of African Law*, *47*, 88–106. https://doi.org/10.1017/S0021855303001998

Morris, C. A. (2018). In Pursuit of Highly Credible Communication: What Nurses Need to Know Before They Testify. *The Journal of Legal Nurse Consulting*, *29*(3), 9–16.

Neal, Tess, & Kovera, M. B. (2015). Harnessing the Science of Persuasion for Expert Witness Testimony. In M. B. Kovera (Ed.), *The Science of Persuasion: Practical Insights from Research on Expert Witness Effectiveness and Jury Decision-Making*. New Orleans: Hyatt Regency.

Schultz, L. (2014). *The Social Worker as an Expert Witness in Suspected Child Abuse Cases: a primer for beginners*. *Institute for Psychological Therapies*. Morgantown.

Van de Mortel, T. F. (2008). Faking it: social desirability response bias in self-report research. *Australian Journal of Advanced Nursing*, *25*(4), 40–47.

Vaughan-Eden, V. (2008). Key Points to Testifying in Child Abuse Cases: Be Prepared, Be Proactive, and Be Professional. *APSAC Advisor*, 23–26.

Wechsler, H. J., Kehn, A., Wise, R. A., & Cramer, R. J. (2015a). Attorney beliefs concerning scientific evidence and expert witness credibility. *International Journal of Law and Psychiatry*, *41*, 58–66. https://doi.org/10.1016/j.ijlp.2015.03.008

Weston, R., & Gore, P. (2006). A Brief Guide to Structural Equation Modeling. *THE COUNSELING PSYCHOLOGIST*, *34*(5), 719–751.

Wilcox, A. M., & Nicdaeid, N. (2018). Jurors' perceptions of forensic science expert witnesses : Experience, qualifications, testimony style and credibility. *Forensic Science International*, *291*, 100–108. https://doi.org/10.1016/j.forsciint.2018.07.030

Williams, B., Onsman, A., & Brown, T. (2010). Exploratory factor analysis: A five-step guide for novices. *Journal of Emergency Primary Health Care*, *8*(3), 1–13.

Ziemke, M. H., & Brodsky, S. L. (2015). Unloading the hired gun : Inoculation effects in expert witness testimony. *International Journal of Law and Psychiatry*, *42–43*, 91–97.

https://doi.org/10.1016/j.ijlp.2015.08.012

Zipse, D. W., & Mohla, D. C. (2014). Expert witnesses: The basics. *Record of Conference Papers - Annual Petroleum and Chemical Industry Conference*, 9–18. https://doi.org/10.1109/PCICon.2014.6961881

SECTION E: ANNEXURES

ANNEXURE A

WITNESS CREDIBILITY SCALE (WCS)

WITNESS CREDIBILITY SCALE

PART B: You as an expert witness:
Please rate yourself as an expert witness for the following items on the scale provided.
If you are unsure please take your best guess.

Unfriendly									Friendly
1	2	3	4	5	6	7	8	9	10
Disrespectful									Respectful
1	2	3	4	5	6	7	8	9	10
Unkind									Kind
1	2	3	4	5	6	7	8	9	10
Ill-mannered									Well-mannered
1	2	3	4	5	6	7	8	9	10
Unpleasant									Pleasant
1	2	3	4	5	6	7	8	9	10
Untrustworthy									Trustworthy
1	2	3	4	5	6	7	8	9	10
Untruthful									Truthful
1	2	3	4	5	6	7	8	9	10
Undependable									Dependable
1	2	3	4	5	6	7	8	9	10
Dishonest									Honest
1	2	3	4	5	6	7	8	9	10
Unreliable									Reliable
1	2	3	4	5	6	7	8	9	10
Not confident									Confident
1	2	3	4	5	6	7	8	9	10
Inarticulate									Well-spoken
1	2	3	4	5	6	7	8	9	10
Tense									Relaxed
1	2	3	4	5	6	7	8	9	10
Shaken									Poised
1	2	3	4	5	6	7	8	9	10
Not self-assured									Self-assured
1	2	3	4	5	6	7	8	9	10
Uninformed									Informed
1	2	3	4	5	6	7	8	9	10
Illogical									Logical
1	2	3	4	5	6	7	8	9	10
Uneducated									Educated
1	2	3	4	5	6	7	8	9	10
Unwise									Wise
1	2	3	4	5	6	7	8	9	10
Unscientific									Scientific
1	2	3	4	5	6	7	8	9	10

ANNEXURE B

WITNESS SELF-EFFICACY SCALE (WSES)

WITNESS SELF-EFFICACY SCALE

PART C: About you when testifying:
Please rate the degree to which you feel you can do the following if called to testify on the witness stand.
Use the scale provided.

NOT		MODERA		VERY
1	2	3	4	5

Remain calm under cross examination

1	2	3	4	5

Control my emotions when questioned by an aggressive attorney

1	2	3	4	5

Maintain a stable tone of voice when speaking

1	2	3	4	5

Avoid fidgeting

1	2	3	4	5

Maintain a good posture throughout the testimony

1	2	3	4	5

Be comfortable on the witness stand

1	2	3	4	5

Remain poised when being questioned by an attorney

1	2	3	4	5

Maintain eye contact with the jury

1	2	3	4	5

Hold eye contact with an attorney

1	2	3	4	5

Hide my nervousness

1	2	3	4	5

Convey confidence in my ability

1	2	3	4	5

Organise my thoughts

1	2	3	4	5

Comfortably admit when I am uncertain of an answer

1	2	3	4	5

Sit up

1	2	3	4	5

Lean slightly forward when answering some questions

1	2	3	4	5

Provide more than "yes/no" answers

1	2	3	4	5

Act natural

1	2	3	4	5

Be myself when testifying

1	2	3	4	5

ANNEXURE C

MARLOWE-CROWNE SHORT FORM SOCIAL DESIRABILITY SCALE (SDS)

SOCIAL DESIRABILITY SCALE

PART D: About you as a person
Read each item and decide whether it is true or false for you.
Try to work rapidly and answer each question.

1 It is sometimes hard to go on with my work if I am not encouraged

AGREE	DISAGREE

2 I sometimes feel resentful when I don't' get my way

AGREE	DISAGREE

3 On a few occasions, I have given up doing something because I thought too little of my ability

AGREE	DISAGREE

4 There have been times when I felt like rebelling against people in authority even when I knew they were right

AGREE	DISAGREE

5 No matter who I am talking to, I am always a good listener

AGREE	DISAGREE

6 There have been occasions when I took advantage of someone

AGREE	DISAGREE

7 I am always willing to admit it when I make a mistake

AGREE	DISAGREE

8 I sometimes try to get even rather than to forgive and forget

AGREE	DISAGREE

9 I am always courteous, even to people who are disagreeable

AGREE	DISAGREE

10 I have never been irked (irritated or annoyed) when people expressed ideas very different from my own

AGREE	DISAGREE

11 There have been times when I was quite jealous of the good fortune of others

AGREE	DISAGREE

12 I am sometimes irritated by people who ask favours of me

AGREE	DISAGREE

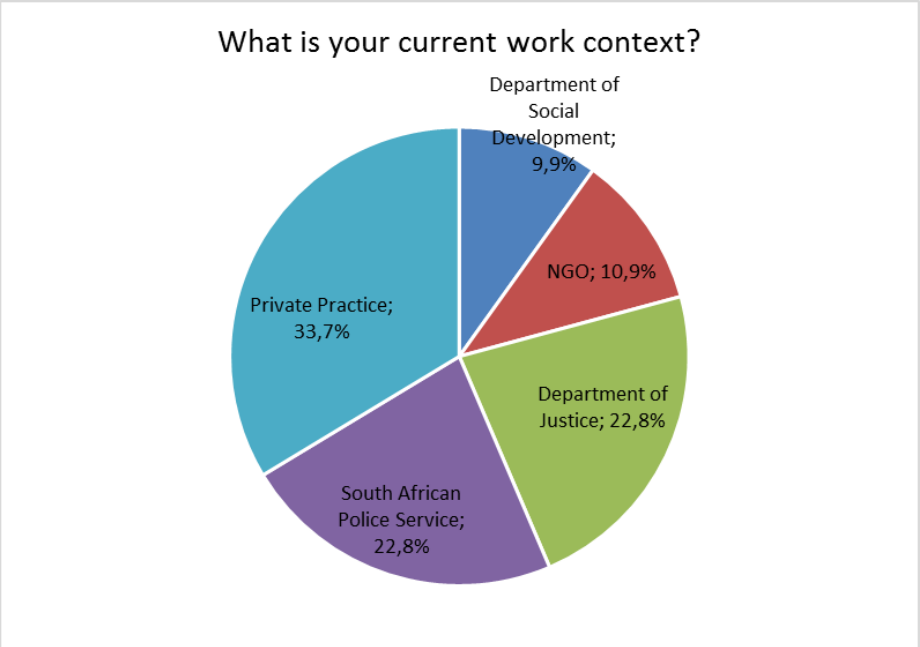
13 I have never deliberately said something that hurt someone's feelings

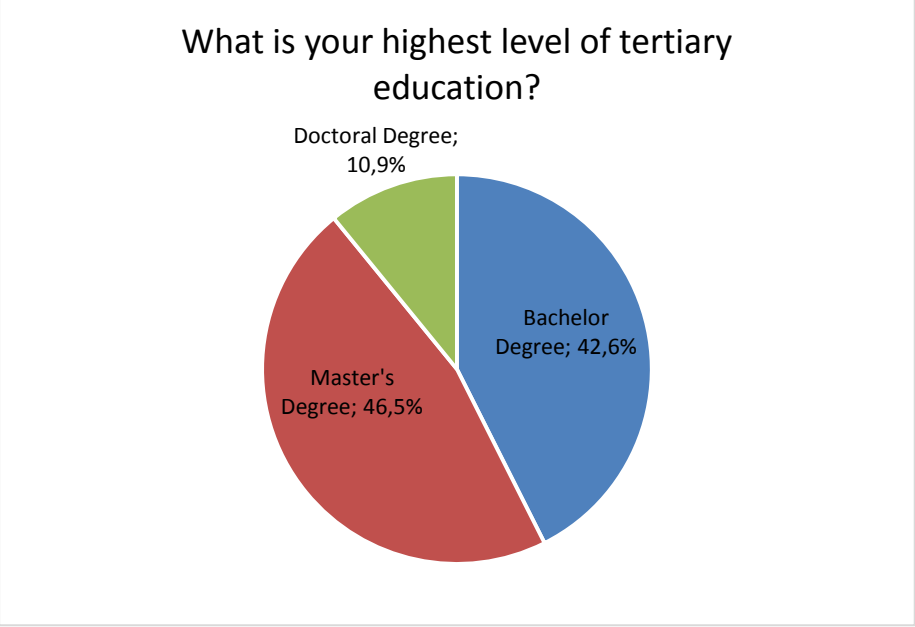
AGREE	DISAGREE

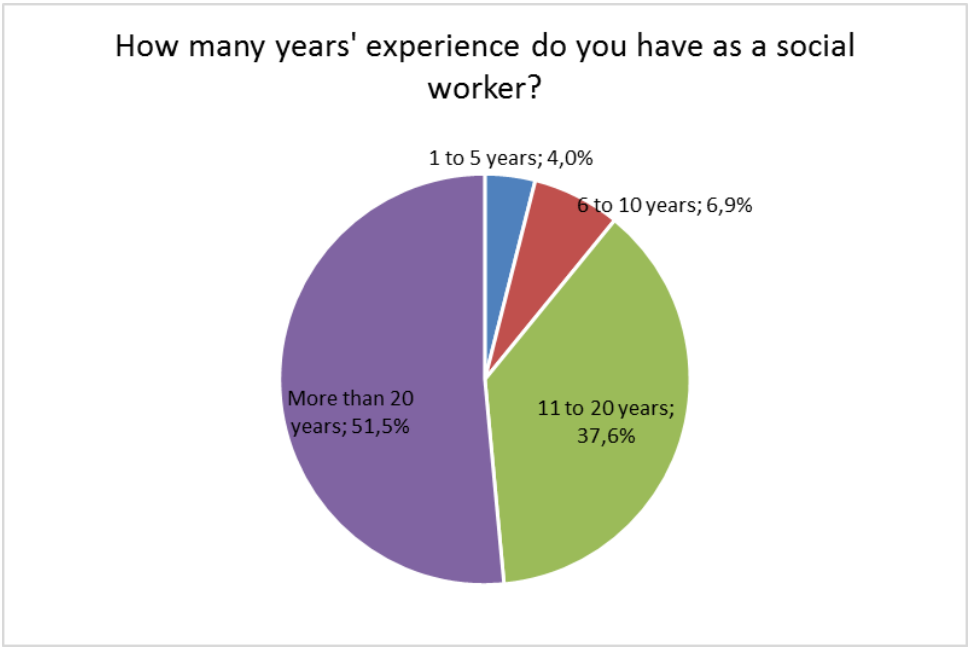
ANNEXURE D

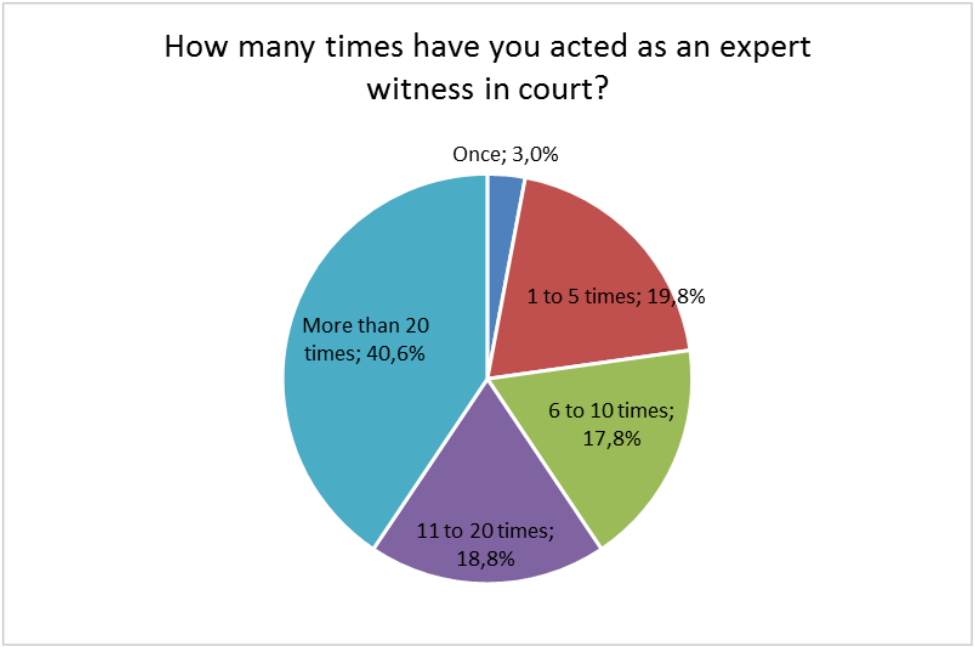
RESULTS OF DATA ANALYSIS

3.8.1 Demographical Information



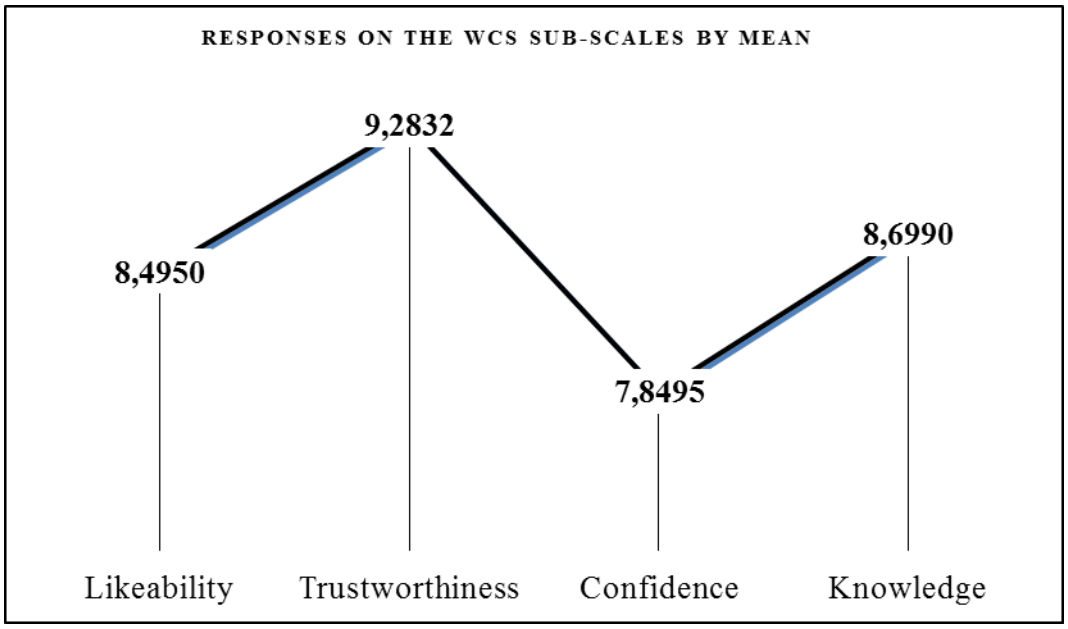



How many years' experience do you have as a social worker?
1 to 5 years; 4,0%
6 to 10 years; 6,9%
11 to 20 years; 37,6%
More than 20 years; 51,5%


How many times have you acted as an expert witness in court?
Once; 3,0%
1 to 5 times; 19,8%
6 to 10 times; 17,8%
11 to 20 times; 18,8%
More than 20 times; 40,6%

3.8.2 Descriptive Statistics

Descriptive Statistics: WCS, WSES and SDS				
Factors	Minimum	Maximum	Mean	Std. Deviation
WCS Likeability	2,60	10,00	8,4950	1.31075
WCS Trustworthiness	1,00	10,00	9,2832	1.42303
WCS Confidence	4,40	10,00	7,8495	1.38171
WCS Knowledgeable	3,00	10,00	8,6990	1.05589
WCS Total	2,75	10,00	8,5817	1.05111
WSES Total	2,67	5,00	4,0275	0.55320
SDS Total	1,00	13,00	9,6634	2.35914



3.8.3 Scale Reliability

Scale Reliability: WCS, WSES and MCSDS	
Scale	Cronbach alpha (n = 101)
WCS Likeability	0,883
WCS Trustworthiness	0,968
WCS Confidence	0,878
WCS Knowledgeable	0,927
WCS Total	?
WSES Total	0,942
SDS Total	0,654

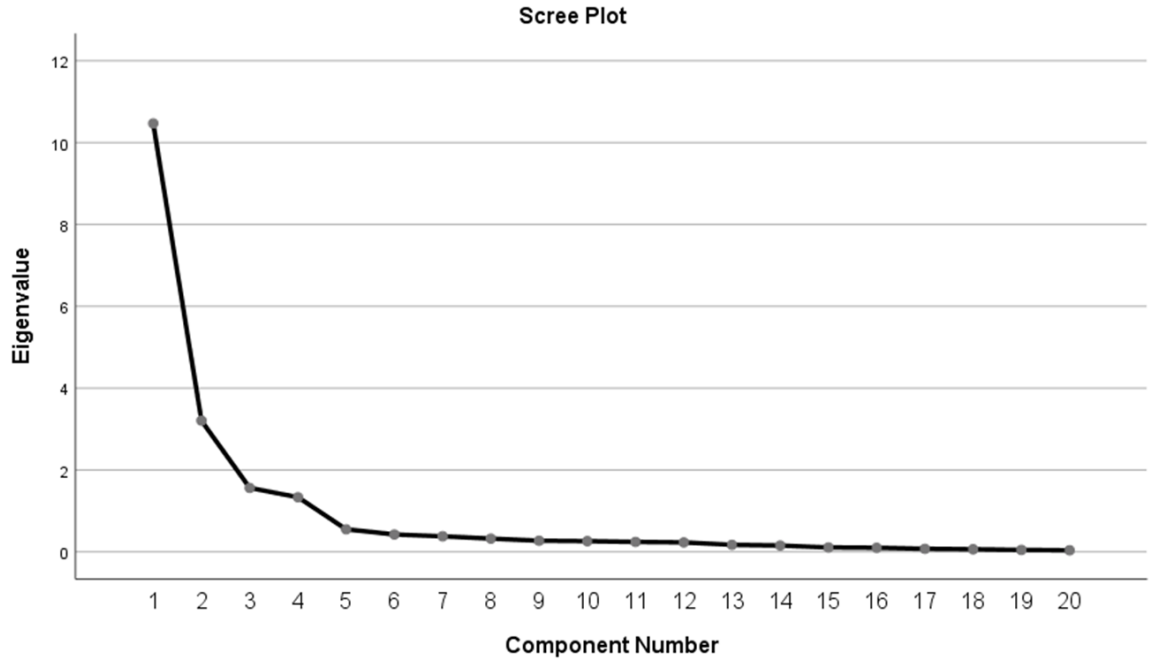
3.8.4 Construct Validity by Factor Analysis, Inter-correlation analysis and Model fit indices

The Witness Credibility Scale

	Suitability for Factor Analysis	
Scale	Keiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's Test of Sphericity
Witness Credibility Scale	0,895	0,000
Witness Self-efficacy Scale	0,928	0,000

WCS: Item total correlation and associated sub-scale reliability			
Likeability	Item Total Correlation	Combined Contribution to Scale	Alpha for Sub-scale
Item 1	0,707	0,958	0,883
Item 2	0,984		
Item 3	0,690		
Item 4	0,957		
Item 5	0,312		
Trustworthiness	Item Total Correlation		Alpha for Sub-scale
Item 1	0,943	0,949	0,968
Item 2	0,964		
Item 3	0,945		
Item 4	0,854		
Item 5	0,944		
Confidence	Item Total Correlation		Alpha for Sub-scale
Item 1	0,701	0,698	0,878
Item 2	0,843		
Item 3	0,602		
Item 4	0,870		
Item 5	0,840		
Knowledge	Item Total Correlation		Alpha for Sub-scale
Item 1	0,753	0,549	0,927
Item 2	0,891		
Item 3	0,898		
Item 4	0,879		
Item 5	0,821		

WCS: Factor total correlation and associated reliability		
Items on the scale	Factor Total Correlation	Alpha for Total Scale
Likeability	0,958	0,883
Trustworthiness	0,949	0,968
Confidence	0,698	0,878
Knowledgeable	0,549	0,927

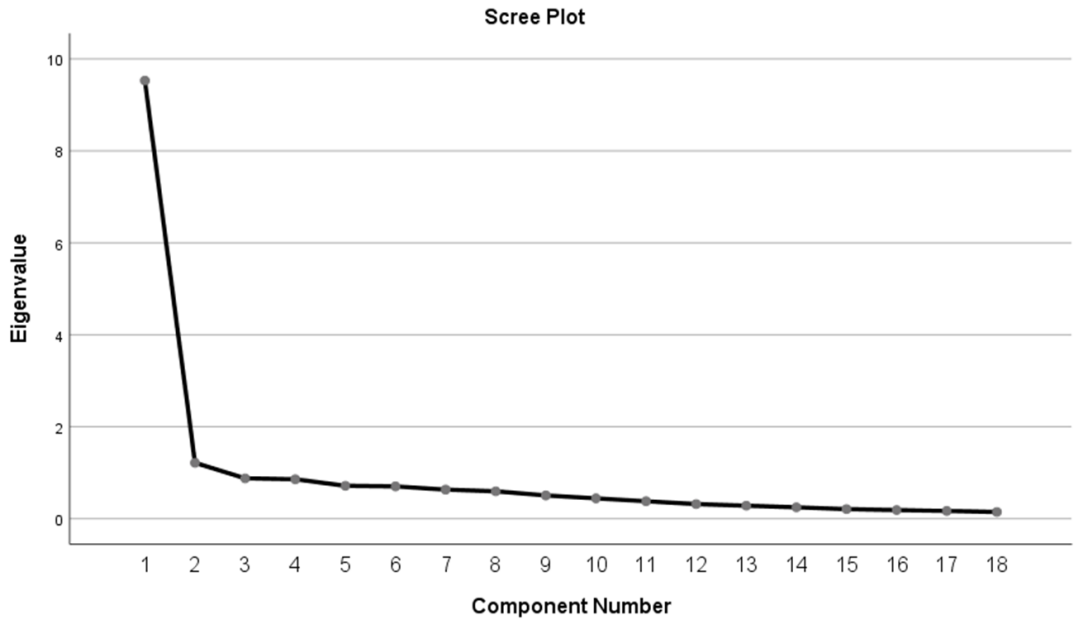


WCS: Correlations between factors			
Factor		Factor	Estimate
Likeability	<-->	Trustworthiness	0,913
Likeability	<-->	Confidence	0,646
Knowledgeable	<-->	Likeability	0,511
Trustworthy	<-->	Confidence	0,644
Knowledgeable	<-->	Trustworthiness	0,492
Knowledgeable	<-->	Confidence	0,664

WCS: Model Fit Indices				
Category	Value			Acceptable Range
Chi-Square Test (CMIN/DF)	3,250			2,00 to 5,00
		LO 90	HI 90	
RMSEA	0,150	0,136	0,164	0,06 to 0,10
CFI	0,837			Closer to 1 is better fit

The Witness Self-efficacy Scale

WSES: Item total correlation and associated reliability		
Items on the scale	Item Total Correlation	Alpha for Total Scale
Item 1	0,793	0,942
Item 2	0,828	
Item 3	0,573	
Item 4	0,572	
Item 5	0,614	
Item 6	0,427	
Item 7	0,741	
Item 8	0,826	
Item 9	0,719	
Item 10	0,572	
Item 11	0,598	
Item 12	0,797	
Item 13	0,803	
Item 14	0,785	
Item 15	0,655	
Item 16	0,798	
Item 17	0,740	
Item 18	0,770	



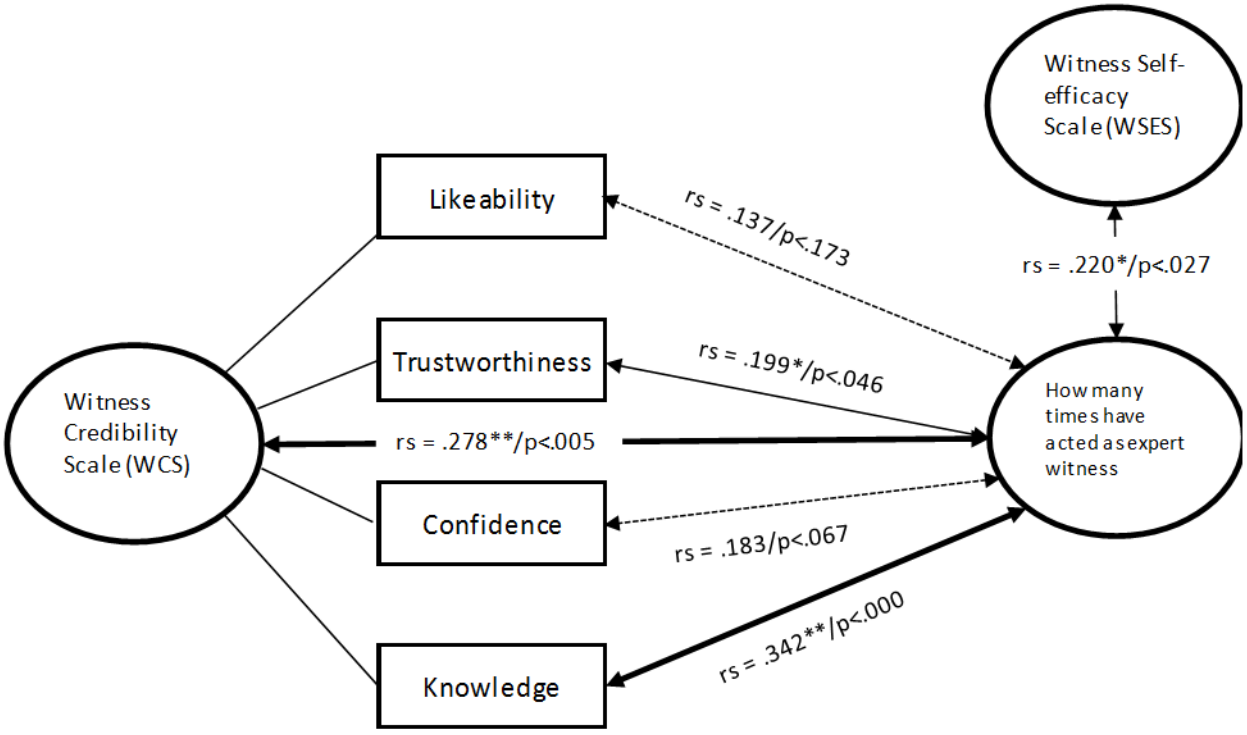
WSES: Item total correlation and associated reliability		
Items on the scale	Component 1	Component 2
Item 1	0,919	
Item 2	0,951	
Item 3	0,809	
Item 4	0,409	0,364
Item 5	0,487	0,418
Item 6	0,826	
Item 7	0,627	0,252
Item 8	0,654	
Item 9	0,369	0,304
Item 10	0,616	
Item 11	0,769	
Item 12	0,771	
Item 13		0,548
Item 14		0,674
Item 15		0,713
Item 16		0,875
Item 17	0,417	0,538
Item 18	0,478	0,426

WSES: Model Fit Indices

Category	Value			Acceptable Range
Chi-Square Test (CMIN/DF)	1,827			2,00 to 5,00
		LO 90	HI 90	
RMSEA	0,091	0,073	0,109	0,06 to 0,10
CFI	0,900			Closer to 1 is better fit

3.8.5 Correlations between and within groups

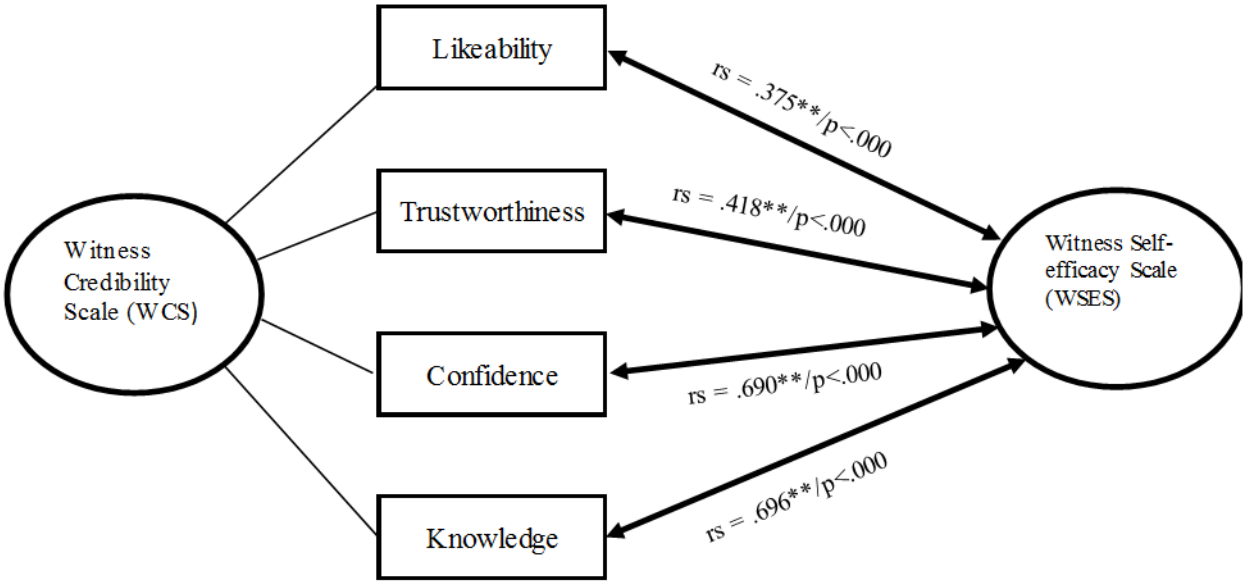
Hypothesis 1: Perceived expert witness credibility and witness self-efficacy are influenced by age, work context, tertiary education level, years' experience as a social worker and the number of times the forensic social worker testified as an expert witness



*** Correlation is significant at the 0.05 level (2-tailed)**

**** Correlation is significant at the 0.01 level (2-tailed)**

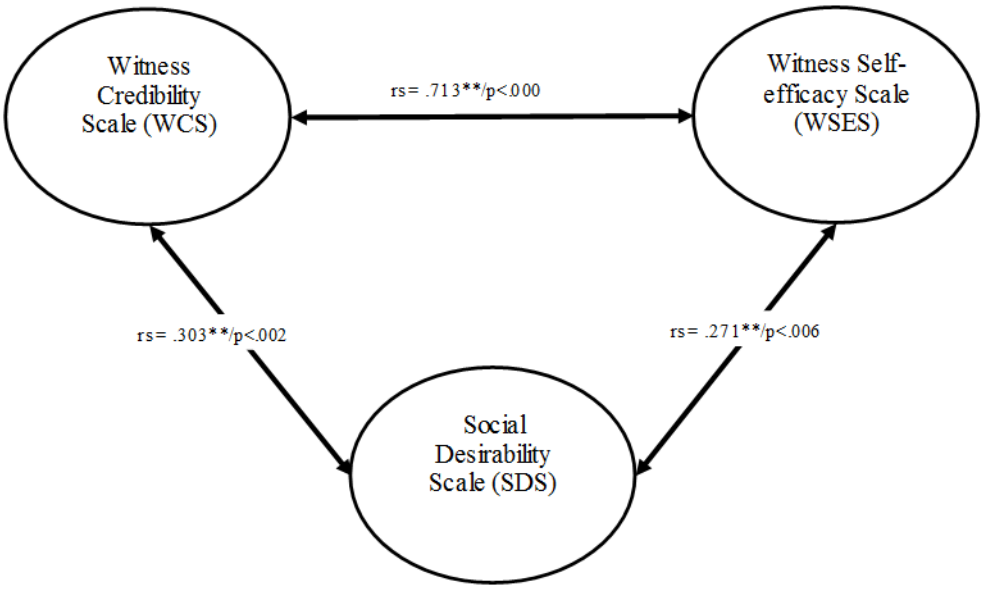
Hypothesis 2: Perceived likeability, trustworthiness, confidence and knowledge correlates positively with witness self-efficacy as represented by poise and communication style



*** Correlation is significant at the 0.05 level (2-tailed)**

**** Correlation is significant at the 0.01 level (2-tailed)**

Hypothesis 3 : Perceived expert witness credibility are not determined by age, work context, tertiary education level, years' experience as a social worker and the number of times the forensic social worker testified as an expert witness in court, but by witness self-efficacy as represented by poise and communication style



*** Correlation is significant at the 0.05 level (2-tailed)**

**** Correlation is significant at the 0.01 level (2-tailed)**

3.8.6 Hypotheses prediction analysis

WCS/WSES/SDS/Number of Times Testified as Expert Witness: Regression Coefficients			
Factor		Factor	p Value
WSE	<--	Likeability	0,802
WSE	<--	Trustworthiness	0,026
WSE	<--	Confidence	***
WSE	<--	Knowledgeable	***
WSE	<--	How many times testified as an expert witness	0,898
WSE	<--	SDS	0,507

Combined Model-WCS/WSES/SDS/Number of Times Testified as Expert Witness				
Category	Value			Acceptable Range
Chi-Square Test (CMIN/DF)	2,743			2,00 to 5,00
		LO 90	HI 90	
RMSEA	0,132	0,119	0,145	0,06 to 0,10
CFI	0,846			Closer to 1 is better fit

ANOVA Coefficients[a]: WSE Dependent Variable							
Model	Unstandardised Coefficients B	Std. Error	Standardised Coefficients Beta	t	p value	Collinearity Statistics	
						Tolerance	VIF
SDS	0,037	0,020	0,159	1,834	**0,070**	0,929	1,077
WCS	0,257	0,045	0,489	5,752	**0,000**	0,962	1,039
Number of times testified as an expert witness	0,050	0,038	0,113	1,302	**0,196**	0,922	1,084