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MASTERTHESIS

Resilience and young motherhood:

The contribution of Self-efficacy and locus of control on Resilience in Young South African Mothers

Maren Berkers - 3518213

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Supervisor: Prof. dr. T. Knijn

University of Johannesburg – Centre of Social Developtment in Africa: MSc. J. Moodley

Second Supervisor: Dr. Y. van Beek

Abstract

Young motherhood is a crucial time for the establishment of resilience. The majority of research underpins the adversities young mothers face. Other research reveals that young mothers also benefit from their young childbearing, which indicates to resilience. The mixed-methods research examines the influence of self-efficacy and locus of control on resilience for 30 mothers aged 18 to 25 years in Soweto, Johannesburg. It also investigates what this means for their mental health. The mothers filled out questionnaires which measured self-efficacy, locus of control, resilience and mental health. Five in-depth-interviews clarify more to their personal stories of motherhood. The purpose was to determine how these constructs relate to having a baby. Although the results did reveal a high occurrence of these constructs, there is no significance found in the contribution of self-efficacy and locus of control on resilience. There is also no significance found in the contribution of resilience on mental health.

For centuries, research in adversities and their consequential psychological setbacks has been repeated multiply. But what if we stop focussing on negative outcomes and rather ask ourselves: how is it possible that people, despite major adversities, still manage to persevere and make the best of their situation? Where does this ability to adjust come from? The Centre of Social Development in Africa offered the opportunity to do research in one of the most well-known townships of South Africa: South West Township, an urban area of Johannesburg also known as Soweto. Immediately it was clear that this was an excellent opportunity to find out how this human strength manifests here.

Resilience

This bendability is also known as resilience. Definitions of resilience range from: 'The ability to bounce back and function adaptively' (Garmezy, 1991, 1993), 'The ability to maintain competence despite stressful and difficult life circumstances' (Dass-Brailsford, 2005), to 'adequate functioning in the face of significant risks, or challenges' (Luthar Cicchetti, & Becker, 2000). In this study resilience is approached as an 'ordinary mechanism' that everybody possesses (Masten, 2001). It is operationalized by: 'A process whereby a person has the ability to overcome adversities and which means that a person is getting supplementary resilient for other adversities'. The general research of psychology has focussed on psychopathology and its appropriate treatment for decades. It eluted the underlying human mechanisms like the adaptation to risks or development after adversity (Masten, 2001).

Despite the emerging interest in resilience, homogeneity in research is hard to find. There is still no consistency in methodology (Masten & Coatsworth, 1998). Evidence is based on retrospective studies, cross-sectional studies and studies with relatively small samples with no comparison groups (Werner, 2013). On top of that there is, as stated above, no consensus about the definition of resilience (Luthar, Cicchetti & Becker, 2000).

Besides these methodological deficiencies, research on resilience is urgent, because it can be utilized as a guideline for developing interventions and mental health policies (Luthar & Cicchetti, 2000). Understanding the concept of resilience can be used for informing policies and programs that substitute competences to improve the health of communities (Friedli, 2009). It emphasizes the underlying mechanism of every normative human system and accepts the inevitable risks and vulnerabilities which are simply part of life (Masten, 2011). The majority of the studies on resilience focuses on children (Campbell-Sills, Cohan & Stein, 2006; Keyes, 2004). However, research has shown that resilience manifests itself in later stages of life, which means that nearly all research may overlook the crucial period of the establishment of resilience (Werner, 2013). This study will therefore focus on young adults.

Intrapersonal factors of resilience are crucial in helping individuals to handle and bounce back from adversities (Mampane & Bouwer, 2006; Kumpfer, 1999; Yates & Masten, 2004). Several studies have tried to reveal consistency in these factors (Masten & Coatsworth, 1998; Hamill, 200). Possible fundamental factors that have received limited attention are locus of control and self-efficacy. Firstly,

self-efficacy will be explained in relation to resilience, and subsequently the locus of control will be operationalized.

Self-efficacy

Bandura (1977) stated that a person with self-efficacy believes that he or she can perform different or novel tasks. This 'can do'-cognition reflects on the sense of control over the environment and therefore presents a self-confident view of one's capability. Those who don't have this self-confident view will have negative thoughts about not being able to handle the situation and therefore will not put effort into their acts (Ozer & Bandura, 1990). People who do have this belief, will set up goals to overcome challenges and will be more perseverant in their effort in achieving this goals (Bandura, Albert, Barbaranelli, Claudio, Caprara, Gian Vittorio, & Pastorelli, Concettal, 2001). Having a high level of self-efficacy may alsTherefore, self-efficacy is linked to overcoming adversities and potentially influences resilience (Herrman Stewart, Diaz-granados, Dphil, Jackson & Yuen, 2011; Mampane & Bouwer, 2006; Yi, Vitaliano, Smith, Yi & Weinger, 2010; Hamill, 2001).

Locus of control

Locus of control is the belief that individuals have a sense of control (internal locus of control), or do not have a sense of control (external locus of control) over events affecting them (Wallston, Wallston, & DeVellis, 1978). When a person with an external locus of control is faced with negative outcomes, this person will think that his/her own effort will have no influence over the situation and therefore will experience feelings of helplessness (Lefcourt, 1976; Shahar, Elad-Strenger & Henrick, 2012). An internal locus of control results in the belief that events can be influenced by one's own effort (Luthar, 1991). If an individual believes his or her own actions have an effect on a situation, he or she will be subjected to lower levels of stress (Cohen, 1980; Evans, Gonnella, Marcynyszyn, Gentile, & Salpekar, 2005; Evans & Cassells, 2013, Theron, 2004). An internal locus of control also means that this person will put more effort in educational aspirations or occupational roles (Wei-Cheng & Bikos, 2000). For this reason, internal locus of control contributes to resilience (Luthar & Zigler, 1991) and it is therefore interesting to explore this relation (Theron & Theron, 2013; Mampane & Bouwer, 2006, Herrman et al., 2011; Fergusson & Horwood, 2003; Masten & Powell, 2003; Cortes & Buchanan, 2007; Werner & Smith, 1982).

Mental Health

As mentioned before, resilience research and mental health research are connected (Friedli, 2009). Generally speaking, mental health research focuses on risk factors and their outcomes (Zimmerman, Ramirez-Valles, & Maton, 1999), but research in resilience provides an alternate perspective: it focuses on the positive development after adversity (Masten, 2011). It is essential to find out which intrapersonal factors contribute to mental health (Friedli, 2009). This study will investigate if locus of control and self-efficacy contribute to resilience and in the end improve mental health.

Research that focuses on mental health doesn't show any consensus about the definition. There is also no standard to study or measure the level of mental health (Keyes, 2005). In this study, mental health is regarded as a state which includes emotional, social and psychological wellbeing (Keyes, 2002). Emotional wellbeing is reflected by satisfaction with life, the presence of positive affect and the absence of negative affect. Psychological wellbeing is someone's full psychological potential. Social well-being describes a combination of social integration, social coherence and social actualisation (Keyes, 1998). Individuals who are flourishing experience high levels of emotional well-being, psychological wellbeing and social wellbeing (Wissing, 2013). In this approach, being mentally healthy means flourishing: it means to be filled with positive emotions and being actively and productively involved. Individuals who are not mentally healthy are languishing in life. They experience low levels of emotional wellbeing, psychological wellbeing and social wellbeing. Those individuals may be conceived with emptiness and stagnation (Keyes, 2002).

The main focus in the majority of scientifically mental health research has been on mental illness, which is described in terms of psychopathology (Wissing, 2013, Keyes, 2005). The problem with this emphasis, is that it has the tendency to underestimate the number of people who aren't falling in the category of psychopathology, but do have a low mental health. Not being diagnosed with psychopathology doesn't necessarily mean that an individual is functioning well (Keyes, 2000; Westerhof & Keyes, 2008). And vice versa: not everyone who falls in the range of psychopathology, experiences a poor quality of life (Bastiaansen, Koot, & Ferdinand, 2005). By focussing just on psychopathology, the approach of mental health remains one-sighted. Although the number of scholars who see mental health as a state of psychological, emotional and social wellbeing is rare (Keyes, 2005), it is increasing (Ryff & Singer, Suldo & Shaffer, 2008). Integrating positive and negative indicators of mental health, will capture a more inclusive representation of functioning (Huebner, Gilman, & Suido, 2007; Snyder, Lopez, Edwards, Pedrotti, Prosser & Walton 2003).

Mental health in South Africa

Research in the available mental health care reveals a shortcoming for people in particularly low- and middle-income countries, like South Africa (Patel, Flisher, Hetrick, & McGorry, 2007; Patel, Flisher, Nikapota, & Malhotra, 2008). Since post-apartheid South Africa, it has become clear that a general notion of mental health has been neglected for a long time (Stein, 2014). In spite of receiving little attention, the burden of low mental health is significant in South Africa (Kakuma, Kleintjes, Lund, Drew, Green, Flisher, 2010). Here as well, there still is a focus on mental health in terms of psychopathology. In addition, approximately a quarter of the people in South Africa lives in poverty (Davids & Gouws, 2013). The relationship between poverty and low mental health is circular (Patel & Kleinman, 2003; Chopra, Lawn, Sanders, Barron, Karim, Bradshaw & Coovadia, 2009). People in poverty are more likely to experience adversities, which increases the risk they develop low mental health (Saxena, Thornicroft, Knapp & Whiteford, 2007). These people are in a disadvantaged position which causes higher stressors, reduced social capital, malnutrition and high rates of violence and

trauma. These risk factors make them more vulnerable to low mental health (Saxena, Thornicroft, Knapp & Whiteford, 2007; Saraceno & Barbui, 1997). Besides that, people with low mental health are more likely to drift into poverty. This is because they experience, for example, limited social support, school dropout, unemployment and stigmatization of mental illness (Patel & Kleinman, 2003). People who both live in poverty and experience low mental health will have less access to mental health care, which makes them less capable of escaping the cycle of low mental health and poverty (Saraceno, Levav & Kohn, 2005).

Besides the presence of poverty and low mental health, South Africa faces another challenge in early pregnancy. It is one of the major challenges the country faces (Kara & Maharaj, 2015). A reason for the high young pregnancy rate may be the cultural importance of fertility in South Africa, (Chalmers, 1990; Ombelet, Cooke, Dyer, Serour & Devroey, 2008) and in certain communities, girls are encouraged to give birth (Wood & Jewkes, 2006). In spite of the importance of fertility, pregnant women face various adversities and there is a great concern for the possible consequences of young childbearing. Young mothers account for high rates of stress, depression (De Genna, Cornelius & Donavan, 2009; Grady & Bloom, 2004) and a low economic status (Szigethy & Ruiz, 2001; Hallman & Grant, 2003). Young adults reveal that they see their pregnancy as a major setback in their lives due to the economic strain, limited job prospects and emotional stress it causes (Varga, 2003). On the contrary, some literature underpins the benefits of young motherhood. Empirical evidence shows that a number of young mothers see their pregnancy as an improvement of their lives (Arenson, 1994; Lesser, Anderson & Koniak-Griffin, 1998) and clinch to their new parenting responsibilities with optimism and determination (SmithBattle & Wynn Leonard, 1998). This means that consequences of early childbearing are not solely negative for young adults, due to the psychological rewards that come with motherhood (Cohler & Musick, 1996). This may be also the reason, why the transition to motherhood is an important opportunity for the establishment of resilience (Werner, 1993).

Present research

In South Africa, like elsewhere, young mothers from disadvantaged backgrounds face various adversities and are vulnerable to negative outcomes like poor mental health. In light of this, it is of interest to see how young mothers cope with motherhood in the face of poverty in South Africa. This group is suitable for investigation into the referred factors contribute to resilience and finally improve mental health. The presented literature shows that there might be a relationship between self-efficacy, locus of control and resilience for young mothers in South Africa. Based on the literature these three hypotheses were formulated: 1. It is expected that an internal locus of control will result in a higher level of resilience. 2. In addition, a higher level of self-efficacy will also result in a higher level of resilience. 3. And ultimately, it can also be expected that resilience will influence the mental health of young mothers in South Africa. Besides examining the existence of these relations, this study will also try to capture the mother's narrative around these constructs. The qualitative research will focus on what it means to have a child in relation to these constructs. This will add to a more complete

understanding of resilience, self-efficacy, locus of control and mental health of young mothers in disadvantages areas such as South Africa.

Methods

Participants

Young mothers (30 women, M_{age} = 20.5 years, age range: 18 – 25 years) were recruited through the Non-Governmental Organisation Crystal Fountain. In general Chrystal Fountain functions as a religious community centre where the community can go to church. This centre also offers support to disadvantage families and focusses mainly on the children. It is a drop-in centre where children can go after school. Chrystal Fountain provides shelter and food after school and donate clothes if necessary. The sampling technique applied here is the snowball procedure. This means that participants recruit future participants based on their acquaintances (Boeije, 2009). Because of the difficult target group, this sample technique made it possible to recruit participants. Four sites were identified for data collection. The residences of the participants were respectively Pimville (23,3 %), Diepkloof (33,3 %), Eldorado Park (26,7 %) and Portea South (16,7) which are all areas in township South West Township (Soweto). The surveys were in English, the participants were required to read, write and speak in the English language. For the second phase of the study, five participants were selected to participate in the qualitative research. This selection made use of ´purposive sampling´ technique. This strategy provides the researcher control over the selection of participants (Calmorin & Calmorin, 2007). The second part of the study wanted to capture the narrative of being a mother around the constructs. Five participants who were motivated to participate and whose English was fluent got selected.

Procedure

The project manager of Crystal Fountain informed other similar NGO's in Soweto about the study. Subsequently the researcher visited each site, to provide information and to make appointments for conducting the research. Mothers who were interested were welcome at the pre-arranged day. The community centres of Pimville, Diepkloof, Eldorado Park and Portea South were made available for conducting the study. Although the contact person of Portea South gave approval for using their main building, due to conditions, it was not available and the data collection had to take place in the car of the researcher. The surveys were explained and the participants were, also during completing, free to ask questions. For participation, each mother had to sign their informed consent. The participants were offered the possibility to express their interest in participating in an in-depth interview and could add their mobile number. For the in-depth interviews, the researcher had to contact those mothers who were eligible to make an individual appointment. The in-depth interviews were audio-recorded.

Research design

A sequential explanatory mixed methods research design was used to answer the research questions (Creswell & Plano Clark, 2011). By using this method, the quantitative data gave clarity

about the expected relationship between the constructs. To measure the locus of control, self-efficacy, resilience and mental health, the mothers filled in the General Self-Efficacy Scale (GSES; Schwarzer & Jerusalem, 1995), the Child and Youth Resilience Measure (CYRM; Ungar & Liebenberg, 2013), the Mental Health Continuum – Short Form (MHC-SF; Keyes, 2002) a Biographic and Social Item List (BSIL) and the Parental Locus of Control scale (PLOC; (Campis, Lyman & Prentice-Dunn, 1986). The PLOC was selected over general locus of control measures, because it is more precise and useful in this context (Hagekull, Bohlin & Hammarberg, 2001). Because of the fairly specific sample, it is important to explore the context more qualitatively (Creswell, 2003). This was done in the second phase of the study: the qualitative research which elaborated on the quantitative research (Creswell, 2003).

Instruments

BSIL. This item list was guided by the Johannesburg Poverty, Livelihood Study Questionnaire (de Wet, Patel, Korth & Forrester, 2008. It contains the following questions: Age (*18 - 25*), education level (1. *None, 2. Primary School Education*, 3. *Secondary School Education*, 3. *Matric* and 4.*Tertiary Education*), marital status (1 = *Single*, 2 = *Married*, 3 = *Divorced* and 4 = *Widow*) and employment status (1 = *Yes,* 2 = *No*), number of children and the age at which participants had their first child.

PLOC. The PCOC contains 47 items with a 5 point Likert scale (1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *neither agree/nor disagree*, 4 = *somewhat agree*, 5 = *strongly agree*). It measures the degree of control the parent feels over their child's behaviour (e.g., "What I do has little effect on my child's behaviour"). It contains five subscales: parental efficacy, parental responsibility, child's control of parents' life, parental belief in fate or chance, parental control over child's behaviour. While the scale is not validated for the South African context the construct has the potential to answer the research questions. The Cronbach alpha of this item scale is .92 (Campis et al., 1986). Regarding this study, after deleting questions 1, 114, 15, 38 and 42 the PLOC yield a Cronbach alpha of .68 (M = 111.80 SD = 11.09)

GSES. The GSES contains 10 items with a 4 point Likert scale (1 = *not all true*,2 = *hardly true*, 3 = *moderately true* and 4 = *exactly true*). It measures the belief that the person can cope with adversity in various domains of human functioning (e.g., "I can usually handle whatever comes my way. A high score indicated a high self-efficacious participant. The GSES has an acceptable reliability and validity with samples from 25 nations, including developing countries (Luszczynska & Schwarzer, 2005; Scholz, Gutiérrez Doza, Sud, & Schwarzer, 2002), but is not validated in South Africa. In a previous study in South Africa assessing a similar age group, in which 73 % women, a Cronbach alpha of .80 was reported (Leader, 2010). Regarding this study, the GSES yield a Cronbach alpha of .71 (M = 29.25, SD = 5.00).

CYRM. The CYRM contains 28 items with a 3 point scale (1 = *No*, 2 = *Sometimes* and 3 = *Yes)*. It measures resilience among young adults (e.g., "I have people I want to be like"). Higher scores on this

scale indicate higher levels of characteristics related to resilience. The CYRM is validated for the South African context (Ungar, Liebenberg, Boothroyd, Kwong, Lee, Leblanc, Duque, Makhnach, (2008). The Cronbach's alpha of this item scale is .80 (*M* = 67.44, *SD* = 6.71).

MHC-SH. The MHC-SH is a 14 item scale with a 6 point Likert scale (1 = *Never*, 2 = *Once or Twice*, 3 = *About once a week*, 4 = *2 or 3 times a week*, 5 = *Almost every day*, 6 = *Every day*) (e.g., "During the past month, how often did you feel happy"). It includes three subscales which are (1) Emotional well-being, (2) Psychological well-being and (3) Social well-being. A diagnosis of flourishing is made if the participants answered '6 = *Every day*' or '5 = *Almost every day'* on one out of three items on the emotional wellbeing scale (items 1-3) and six out of eleven items on the social and psychological wellbeing scale (items 4-11). A diagnosis of languishing was made if the participants answered '1 = *Never'* or '2 = *Once or Twice*' on one out of three items on the emotional wellbeing scale (item 1-3) and six out of eleven items on the social and psychological wellbeing scale (item 4-11). If the participants were neither languishing nor flourishing, then the participants were moderately mentally healthy. In a study of Keyes and colleagues among Setswana-speaking sample, they reported a Cronbach of .74 (Keyes, Wissing, Potgieter, Temane, Kruger, & van Rooy, 2008). The Cronbach's alpha of this item scale is .83 (M = 55.77, SD = 13.13).

Qualitative measures

In-depth interviews were conducted to illustrate quantitative findings by narratives. The pragmatic purpose was to illustrate the concepts of resilience, self-efficacy and locus of control in this specific context (Bryman, 2006). The quantitative questionnaire contained one open question: '*What does it mean for you to be a mother*?' The participants were allowed to draw or write a story. This functioned as a frame work for the interview. Besides that, for each interview quantitative answers were recalled and the participants were asked to substantiate these. They were asked to provide examples from daily activities belonging to motherhood. The purpose was to determine how these constructs relate to having a baby. Every participant received similar interviews, however the interviews were adapted around the individual answers of the participant. The complete interview guide is included in Appendix 2.

Ethical Considerations

The research received ethical clearance from the University of Johannesburg Humanities Research Committee which is included in Appendix 4. The young mothers who participated in this study were asked to provide written informed consent. The participants were informed about the aim of the study, the audio-recording, their anonymity, their right to drop out at any stage during the study with no repercussions, the confidentiality and the voluntary aspect. During this study, the research followed the American Psychological Association's Ethnical Principles of Psychologist which included (American Psychological Association, 2010):

Principle A: Beneficence and No maleficence

Principle B: Fidelity and Responsibility.

Principle C: Integrity

Principle D: Justice

Principle E: Respect for People's Rights and Dignity

The principles will be extensively explained in Appendix x.

Statistical Analysis

The quantitative data analysis was conducted utilizing Statistical Package for Social Sciences (SPSS). To test the hypotheses Multiple Regression analysis was conducted. Due to the categorical dimension of mental health Multinomial Logistic Regression was also applied (Field, 2009). Pearson correlation is applied to analyse which variables were significantly correlated and consequently had to be included in the Multiple Regression analysis. Besides controlling for level of education in the hierarchical regression analysis, there is also controlled for other biographic variables (race, number of children and age). Because of no statistically significance these analyses are not presented in the Results. The small sample size limited the option of checking the assumptions of parametric statistics. Research shows that parametric tests are not seriously affected by violations of assumptions. Parametric tests contain more power and thereby the use of Multiple Regression analysis is preferred (Glass, Peckham & Sanders, 1972). Missing data was replaced to make the data set more complete. This is legitimated by running a Missing Completely at Random Test (MCAR). This missing data was replaced by use of Maximum Likelihood estimation with the Expectation-Maximization Algorithm (Truxillo, 2005; Field, 2009).

Qualitative Analysis

MAXQDA 11 was used to analyse the interviews. At first, the interviews were transcribed. Open coding was applied. The developed codes were a combination of 'in-vivo' codes, words that were used by the participants themselves, and a small amount of 'constructed codes', concepts based on the literature on resilience, self-efficacy, locus of control and mental health (Boeije, 2009). Axial coding was completed to provide a more in-depth analysis of the interviews and also to make a selection of the data which was useful for answering the research question. Qualitative research brings the risk of interpreting results based on already existing theories. To minimize this interpretation, 'theoretical sensitivity' is guaranteed: by maintaining the stories of the participants as much as possible by constructing a chronological structure and hereby keeping an open mind in applying the concepts discussed within the theoretical framework. By choosing this less standardised character of methods, there will be more flexibility for new and relevant topics (Boeije, 2009).

Results

Quantitative

The descriptive statistics of the constructs are shown in Table 1. The instruments in this study lack a universal division of the outcome. Therefore, the current study divides the scores into a low self-efficacy group (scoring 10 to 25 on the GSES) and a high self-efficacy group (scoring 26 to 40 on the GSES). This is also carried out with the scores on the PLOC and results in the following distribution: internal locus of control (scoring 47 to 141 on the PLOC) and external locus of control (scoring 142 to 135 on the PLOC). The scores of resilience are divided into a low resilience group (scoring 1 to 28 on the CYRM)), a medium resilience group (scoring 29 to 56 on the CYRM) and a high resilience group (scoring 57 to 84 on the CYRM). Remarkable is that the majority of the participants fall in the group of being self-efficacious, resilient, flourishing and containing an internal locus of control. This division in groups is used only to reveal the minor variation in responses and is used in the Multinomial Logistic Regression. For the Multiple Regression analyse the continuous data is imputed.

Table 1
M, SD and percentage of the variables self-efficacy, locus of control, resilience and mental health

Variable (N = 30)	*M*	*SD*	*%*
Self-Efficacy	29,46	4,99	-
Locus of Control	112,26	10,80	-
Resilience	70,81	6,30	-
Flourishing	-	-	53.33
Languishing	-	-	13,33
Moderate mental health	-	-	33.33

Table 2 shows the Pearson correlations. There is a significant positive correlation between both level of education and self-efficacy and between level of education and locus of control. Level of education is therefore included in the hierarchical multiple regression analyse as a control variable.

Table 2

Pearson Correlations

	1	2	3	4	5	6	7	8
1. Race	-							
2. Relationship status	-.05	-						
3. Level of education	-.05	.31	-					
4. Number of children	-.13	-.19	-.27	-				
5. Events	-.20	.03	-.17	-.04	-			
6. Self-efficacy	-.36	-.11	.38*	.21	.03	-		
7. Locus of control	-.07	-.13	-.56**	.11	.03	-.21	-	
8. Resilience	-.02	.10	.31	-.30	-.14	.34	.01	-

Note: * p < .05. ** p < .01.

Multiple regression analysis was used to assess the ability of self-efficacy and locus of control to predict the level of resilience. There were no statistically significant results. Although not being significant, self-efficacy explains 12 % of the level of resilience F (2, 27) = 1.88, p < .06. For completeness, hierarchical multiple regression was also applied with controlling for the influence of level of education. Level of education was entered at Step 1. Self-efficacy and locus of control was entered at Step 2. There were no statistically significant results.

Tabel 3

Multiple regression analysis of self-efficacy and locus of control on resilience

	Resilience					
Predictor	*B*	*SE*	*b*	*t*	*p*	
Self-Efficacy	.45	.23	.36	1.94	.06	
Locus of Control	.05	.11	.09	.47	.64	
Total R^2						.12
F						1.88

Note. * p < .05.

Multinomial logistic regression analysis was conducted to predict mental health using locus of control, self-efficacy and resilience as predictors. By applying a stepwise method, all main interaction effects are tested. It is expected that self-efficacy, locus of control and resilience will influence mental health. The results of the Multinomial Logistic Regression are presented in Table 4. There are no statistically significant results.

Tabel 4

Multinomial Logistic Regression Analyse of self-efficacy, locus of control and resilience on mental health

		95 % CI for Odds Ratio			
	B (SE)	*Lower*	*Odds Ratio*	*Upper*	*p*
Languishing vs. Moderately Mental Health					
Intercept	-11.69 (11.05)				.29
Resilience	.09 (.12)	.88	1.10	1.38	.42
Locus of Control	.04 (.06)	.93	1.04	1.18	.48
Self-Efficacy	-.03 (.14)	.76	.97	1.25	.84
Flourishing vs. Moderately Mental Health					
Intercept	-2.40 (6.75)				.72
Resilience	.12 (.08)	.96	1.12	1.32	.17
Locus of Control	-.04 (.04)	.88	1.12	1.32	.35
Self-Efficacy	-.03 (.10)	.80	.97	1.17	.78

Note : R^2 = .21 (Cox & Snell), .24 (Nagelkerke). Model $\chi^2(8) = 6.92$,

Note 2: * = $p < .05$.

Qualitative

This section will try to capture the mother's narrative around motherhood. This will result in a more complete understanding of resilience in this South African context. Although all women had a boyfriend when they became pregnant, none of them planned the pregnancy. This due to multiple reasons such as for example not trusting their boyfriend, their young age, or not wanting to mess up their plans to study. Although still struggling and dealing with past experiences, they see their child as a blessing.

Resilience

Comparable with what is found in other research, the process of becoming a mother can be seen as a source of resilience (SmithBattle & Wynn Leonard, 1998; Marsilio, 2004). The mothers all see becoming a mother as one big lesson of life. They substantiate this by giving different examples of learning things and getting new responsibilities. '*Like whenever she grows, in all these new things in each and every day life, as a parent, as a mother, like how to react to her when she's doing this. I learn each in every time she grows. It is a really great experience, you know. Cause it make me to grow very maturel*y. '(2) One of them indicated that her child taught her to love again: '*Like I've learned to love again. That is the most wonderful thing. Learning to love again and to open up'*. (5).

They get new responsibilities which changes their previous behaviour: Like knowing how to budget, not switching from boyfriend to another boyfriend too soon and changing their party behaviour. '*Everything I do, I think. Is this going to bring goodness to my daughter's sake? If it's not, then I don't do it. Like going out and having fun with friends, and drink. I come home early, for my daughter'.(5) 'That I mean with being a mother. Being a mother really changed me a lot, every day. Whenever she gets to do her thing, I have to think of my daughter. Each and every day (1).* Having new responsibilities are by some mothers seen as a next step in life. They compare being a mother with growing as a person. '*Everything that I learned about life. Everything that I went through they made me who I am. I really think because of that. At some point I don't think I was responsible or I was mature. Maybe I was still this irresponsible teenager if I didn't had that child.*'(5). They also convey that being a mother makes you mature really fast. '*And to be responsible also, it taught me a lot to be responsible, to be mature very early'(2*). They belief in the idea that facing these challenges brings you further in life.

Corresponding with other research, being a mother includes learning and may also create new ways of coping (SmithBattle & Wynn Leonard, 1998), which can be seen as a form of bolstering resilience. Resilience appears in the belief that raising their child is a challenge, which also includes making mistakes. The mothers designate that being independent and making mistakes, are the best lessons. *" I also think you have to learn along the time. I think than when people tell me what to do all the time, I wouldn't learn"(2).* The mothers seem to have the urge of wanting to be strong in sake of their child. They want to function as a role model and not showing their weakness or the problems they face.

Self-Efficacy

In general mothers are convinced in the ability to overcome challenges. If things don't work out immediately, you have to try harder. This drive seems to come from both motherhood and previous experiences: '*Because I am a parent.* [What do you mean by that?] *Because I am a parent, a parent has to face every situation' (3). Yes, I don't want problems affect my life. I try to find a solution until I resolve the problem. I don't just give up. I know myself and I'm not a quitter'(5), 'I was staying here and here and here, everywhere. My grandmother kicked me out. Every situations was so hard. But I had to fight'* (*4), 'But that is life!! It is challenging. And at some point you just have to prepare yourself for each and every challenge that comes. Prepare yourself!' (5)*The mothers address multiple situations where they had no other choice, than to push through. *'Yes I have grown, because I can handle any situation' (4); 'My own strength, you understand. I'm trying to be the best that I can be' (1).* This feature of feeling self-efficacious, may be more present in young mothers because of their responsibilities towards their child. Although they see that the child interfered with their plan to study, they do see themselves picking this up in the future. *'But because I know myself I want to achieve more. I just have my goals. I want to be out there. I want my name to be known' (5)*

Locus of Control

The mothers are convinced of having control in taking care of their child: '*I don't want anyone to tell me what to teach my son' (4).* They feel that their interaction with the child, affects the child's behaviour. *'I feel in control when it comes to my child because now she is still young you know, so whenever I know that she is doing her own thing I'm telling her: uh uh! Don't touch that, you will get hurt. She listens to me and she know that: ooh my mom says no, then I have to listen. You know'* (*2).*

According to Theron (2006), having an internal locus of control encourages a survivor mentality. This seems to be explicitly triggered by motherhood. '*Because I think if you are not going to do anything about it, nothing will happen, nothing will change. That situation will never change unless you do something' (1).'I told myself I'm not going to affect my problems affect my school. I'm going to pass. I have to push harder. And I did push harder and eventually I achieved something. That certificate means a lot to me. I worked a lot! I didn't cheat or something, I managed to do it myself*'(5). Even though there is no money for daily essentials, they try to find other solutions. In addition, they don't want problems to affect their lives. *'Yes, I don't want problems affect my live'(5).* This bespeaks of an internal locus of control.

There was also evidence for signs of an external locus of control. This was mainly in cases with institutions or legitimate cases like not being able to find a job. A lot of these women don't have an identification. '*The thing is, my mom isn't South African so she doesn't have an ID. So she couldn't make an ID for me as a citizen. So I am like a foreigner in my own country. But I am born here. So because I don't have an ID, I had to step out of the work' (5).*

Discussion & Conclusion

The aim of current research is to investigate the influence of resilience to the mental health of young mothers living in Soweto, Johannesburg. This study puts more clarity around the establishment of resilience and the potentially contribution of both self-efficacy and locus of control. First of all, it is expected that self-efficacy influences resilience. This study doesn't find any significance for this. This hypothesis is near to statistically significance. Not finding significance may due to the small sample size. Second of all, it is expected that locus of control influences resilience. Also here, no significance is found. Finally, it is assumed that resilience influences the mental health of the young mothers. Results don't reveal any significance. Level of education significant correlates with self-efficacy and locus of control. When people are feeling self-efficacious to fulfil educational and occupational aspiration, the better they prepare themselves educationally and study for higher degrees (Bandura, et al., 2001). Also being higher educated indicates is related to a higher level of internal locus of control (Wei-Cheng & Bikos, 2000).

As suggested by Werner (2013), motherhood is a crucial time for the establishment of resilience. Although results of this study do not affirm the proposed hypotheses, the mothers in this

study seem to be highly resilient ($M_{resilience}$ = 70,81 at a range of 1 - 84). The interviews reveal examples of resilience around motherhood. According to them, motherhood is a process of learning and growing and getting new responsibilities. They tend to see daily activities as life lessons. And becoming a mother forced them to be mature really quick. The participants see motherhood as a lesson of life. According to them these new responsibilities changed their previous, not always responsible, behaviour. They indicate that everything that they went through, made them who they are. This corresponds to the prevalent definitions of resilience (Garmezy, 1991, 1993; Dass-Brailsford, 2005; Luthar, Cicchetti, & Becker, 2000). Resilience appears in this study as the belief that raising their child is a challenge, which also includes mistakes. Additionally, they come up with concepts that are in line with earlier research: optimism, new life purpose and responsibilities (SmithBattle & Wynn Leonard, 1998).

Secondly, literature shows that early childbearing doesn't solely have negative psychological consequences (Vagra, 2003; De Genna, Cornelius & Donavan, 2009; Grady & Bloom, 2004). The majority of the mothers in this study were flourishing (53,33%). This doesn't mean that these mothers aren't struggling with socio-economic issues, which is also mentioned by the mothers in the interviews. Although no significant cohesion has been found, the fact that the majority of these women are flourishing, can still be the cause of 'ordinary human mechanisms' like resilience (Masten, 2001). According to literature, self-efficacy potentially influences resilience (Herrman Stewart, Diaz-Granados, Dphil, Jackson & Yuen, 2011; Mampane & Bouwer, 2006; Yi, Vitaliano, Smith, Yi & Weinger, 2010). Besides the high occurrence of resilience among the participants, this also accounts for self-efficacy ($M_{self\text{-}efficacy}$ = 29,46 at the range of 10 - 40). The interviews demonstrate that the mothers show feelings of self-efficacy when it comes to their child. They seem to be convinced to overcome challenges, just because they don't have another option. Given the fact that they have their baby, they have the feeling that they have to push through and try harder when things don't work out immediately. The mothers seem to have plans and goals for the future, which means that they feel self-efficacious to achieve it. And finally as regards locus of control, in this study nearly all mothers contain an internal locus of control ($M_{locus\ of\ control}$ = 112,26 at a range of 47 - 135), consistent to the expectations (Theron & Theron, 2013; Mampane & Bouwer, 2006, Herrman et al., 2011; Fergusson & Horwood, 2003; Masten & Powell, 2003; Cortes & Buchanan, 2007; Werner & Smith, 1982; Luthar & Zigler, 1991). The in-depth interviews reveal that the mothers show feelings of control over their baby. They seem to be convinced that nothing will happen if they don't do anything. This refers to an internal locus of control. Issues around money or residency call for an external locus of control.

The reason for not finding any statistically significance could be the minor variation of answers of the participants. Remarkably all the mothers seem to be self-efficacious, resilient, flourishing and contain an internal locus of control. The use of self-reporting measures increases the risk of socially desirable answers. This is the propensity to give socially acceptable answers, even if they aren't true (Zuckerman, Kuhlman, Joireman, Teta & Kraft, 1993). This phenomenon seems

especially relevant in studies of mental health (Ross & Mirowsky, 1984) and amongst South Africans (Edwards & Riordan, 1994). Additionally, responses may also be shaped by the interviewer's gender, ethnicity, nationality or age which particularly accounts for countries in Sub-Saharan Africa (Sweetland, Belkin & Verdeli, 2014). Another reason for the minor variation of responses may be the cause from the chosen sampling technique. At first, the sampling technique 'snowball procedure' applied in this study may lead to over-representation of a certain group of mothers. The recruitment is applied on only a select group of mothers, with the same background and friends. Secondly, the majority of the participants were part of NGO's in Soweto. For the purpose of the study, this could lead to a bias, because these women may have several advantages. Attending a NGO means a source of support. Additionally, it is possible that the NGO teaches them to evaluate their situation more positive which reduces the variation in responses. Thirdly, the choice of only letting English speaking mothers participate, may also lead to bias. Mothers who are capable of speaking English, could have several advantages too. The current study had to decline some mothers, who were motivated to participate, but who were not able to speak English. Although this choice entails overcoming the language barrier, it has to be recognized that this can lead to a bias. And final, during completion of the surveys, participants seem to struggle with some of the questions, which also can lead to a bias. A limited variation in responses, whereby the mainly all participants seem to be self-efficacious, resilient, flourishing and contain an internal locus of control, could cause a ceiling effect. A ceiling effect, which means that participants score high on both constructs, causes an inability to confirm the cohesion. A ceiling effect reduces the chance for finding a significant relation.

Another explanation by not finding significant correlation could be the cause of methodological validations. Despite emerging attention on resilience, the concept is often being criticized (Luthar, Cicchetti, & Becker, 2000) and is still ambiguous (Masten & Coatsworth, 1998). Specifying the definition and developing and applying universal need of measurement is required (Luthar, Cicchetti, & Becker, 2000). Additionally, resilience scales are recently developed, fairly under investigated and there is not one widely accepted or preferable over others (Connor & Davidson, 2003). Although the CYRM scale is validated in South African context, it remains relatively new. This can lead to inconsistency in results, which may be the case in current study. Literature presents a legitimate relation between locus of control, self-efficacy and resilience (Herrman Stewart, Diaz-granados, Dphil, Jackson & Yuen, 2011; Mampane & Bouwer, 2006; Yi, Vitaliano, Smith, Yi & Weinger, 2010; Theron & Theron, 2013; Mampane & Bouwer, 2006, Herrman et al., 2011; Fergusson & Horwood, 2003; Masten & Powell, 2003; Cortes & Buchanan, 2007; Werner & Smith, 1982; Luthar & Zigler, 1991). Not finding verifying results for this in the current study, may due to the choice of measuring resilience. The majority of the instruments are not validated for the South African context which could still lead to methodological invalidity.

Future research

This study contributes to the growing, but still insufficient, research on resilience. It takes an approach that hasn't been done before. It combines exploring the contribution of the intrapersonal factors to resilience and the transition to motherhood. By combining quantitative and qualitative methods, it provides not only information of the universal psychological factors, but also gives more clarity to the context and reveals narratives around motherhood. While other studies focus on the psychopathology of mental health, this study implements the more contemporary perspective of mental health. Due multiple limitations which are mainly applicable on methodology, the results of this study do not find evidence of the contribution of self-efficacy, locus of control and resilience to mental health. Future research is necessary. It is hereby important that this research will expand on the found relation between the level of education and the predictors self-efficacy and locus of control. For this research it is essential that the researcher takes more time to get familiar in the context to recruit a more heterogeneous sample size. Future research can use partly the same method, but enlarge the sample size and implementing a control group. By doing so, this will give the possibility to compare groups. In current study the majority of the instruments were not validated for the South African context. Future research could expand the methodology by not solely basing results on self-reporting measures. It could try to capture information by making use of other informants or observations. Future research can also implement factors as hope and optimistic attitudes revealed in this study as in literature (Lloyd & Hastings, 2009). Future research could improve measurement instruments and more research in resilience is necessary to get clarity about how the process of resilience works.

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Appendix 2 Interview guide manager

Ice breaker

1. I see that you have … children? What is his/her name?
   How did you find out that you were pregnant?
   How did you became pregnant?
   Was it your choice?
   And what was your first reaction that you were pregnant?
   What does it mean for you to have a baby?
   Can you tell me something about your experience of being a mother?

2. I see that you indicated… (Life events),
   - Did you experience these events before or after you became a mother.
   - Do you think that becoming a mother change the way you approach these difficulties?
   If yes, can you explain to me how? And would you like to give me some examples?

3. *We are now going to talk about you handle complicated situations:*
   You indicated that you always manage to solve difficult problems if you try hard enough. You usually can handle whatever comes on your way and you indicated that you can rely on your coping abilities?
   Why did you gave this response?
   Why do you have this believe
   can you give me some examples of this?

   We are now going to talk about what your idea is about having control over events.
   You filled in that when you child makes a scene, you should never give up.
   Why did you fill this in?
   Do you think you have control?
   You agreed with the sentence That you always feel in control when it comes to your child
   Why do you think that?
   You disagreed with the sentence that is your child struggles, no matter how hard you try, you might as well give up
   Why do you think that? Why do you think you can control this situation?
   Do you think this is the same with other comparable situations?
   You agreed with the sentence that you feel in control when it comes to your child:
   What do you mean by this?
   And could you give me some examples?

We are now going to talk about your wellbeing

4. You have indicated that you feel happy with life *almost every day*

   Why and when do you feel happy?

   You have indicated that you feel satisfied with life *almost every day*?

   Why and when?

   Can you give me some examples ?

   You have indicated that you feel *almost every day* that you had experiences that challenged you to grow and become a better person.

   Why do you feel this? Can you give me some examples?

We are now going to talk about how you adjust.

5. You have indicated that you feel like you have chances to show others that you are growing up.

   What do you mean by growing?

   And what makes you to grow?

*Elaboration on last open question (**1**)*

6. You indicate that being a mother is a good and fresh start to your life. And you told me that you now have a reason to live and doing.

   Why did you write this down?

   And what do you exactly mean by this?

   Can you give me some examples?

   You also indicated that you are a good example to your son life

   In which way are you a good example?

   You indicated that life is a great journey

   What do you mean by this?

*Elaboration on last open question (**2**)*

You have indicated that being a mother really made you grow and a young person.

Why do you think this?

What do you mean by this?

You also indicated that know how to use time.

Why did you learned this by being a mother?

You indicated by being a mother you learned to be open minded by great aspects on life daily.
Can you try to explain this? What do you mean by this?

*Elaboration on last open question (**3**)*

7. You have indicated that you feel blessed to be a parent at a young age.
   Can you try to explain why you feel this?
   You also wrote you learnt a lesson of not starting with the things you suppose to end with. It helped you to study hard and further you studies at tertiary.
   Can you try to explain this? How come did you learn this by being a mother? And why did this help you?

Appendix 3 Informed Consent

Dear miss,

Thank you for participating in this study. I'm really grateful that you are willing to give up your free time to full in these questions. Your participation is really important for the contribution to the research how we can support young mothers. This project is part of my final year for my master degree at the University of Johannesburg. The study is about young mothers who are live in townships and how they experience daily life.

The questionnaires start with some basic question about your personal information. This means that I could contact you again if you are willing me to do so. The questions that will follow are based on you cope and approach daily activities. Filling in this questionnaire will take approximately *45 minutes*.

There may be include some sensitive questions, and I do like you try to answer this. But if you do feel uncomfortable with the question, you are free to decline the question. If you to feel unhappy at any moment during the questions and you do not want to proceed, you are free to quit filling in the questions. Obviously there are no consequences for not proceeding.
Please note: All the personal information you provide, as well the answers you give on the questions will remain confidential. When the results of this research are present, nobody is able to identify you.

Would you please sign this form to declare that you are informed about the content of the research and that you are participating on voluntary basis. If you are willing to be contacted for a one-on-one interview at a later time, please indicate this:

☐ Yes, I am willing to participate for one-on-one interview

Signature: _____ Date: _____

The Humanities Academic Ethics Committee
University of Johannesburg
14 April 2015

J Moodley and Trudie Knijn (Supervisors)
Centre of Social Development in Africa
Faculty of Humanities
University of Johannesburg

ETHICAL CLEARANCE

Title of research: Psychological well Being and Resilience in Young South African Mothers

Name of student: Maren Berkers

Student Number: 201510625

Dear Ms Moodley,

It is the judgement of the "Faculty of Humanities Academic Ethics Committee" that the research proposal, and the relevant documents submitted to us in support of a request for Ethical Clearance, has clearly indicated that the standard practice of ethical professionalism will be upheld in the research.
From a research ethics point of view, the Humanities Academic Ethics Committee therefore endorses the proposed research.

Yours sincerely

Professor Zelda G Knight

Chair: The Humanities Academic Ethics Committee

CC: Chair: Faculty Higher Degrees Committee