

TOWARDS THE DEVELOPMENT OF AN EMOTIONAL REGULATION SCALE

Monique Strauss

May 24, 2018

T: +27(0)51 401 9111 | info@ufs.ac.za | www.ufs.ac.za

© Copyright reserved
Kopiereg voorbehou

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSAPPE

IN RECOGNITION OF....

- Occupational Therapy Student Research Groups
- Department of Biostatistics, University of the Free State

T: +27(0)51 401 9111 | info@ufs.ac.za | www.ufs.ac.za

© Copyright reserved
Kopiereg voorbehou

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

Adolescence

1875000000

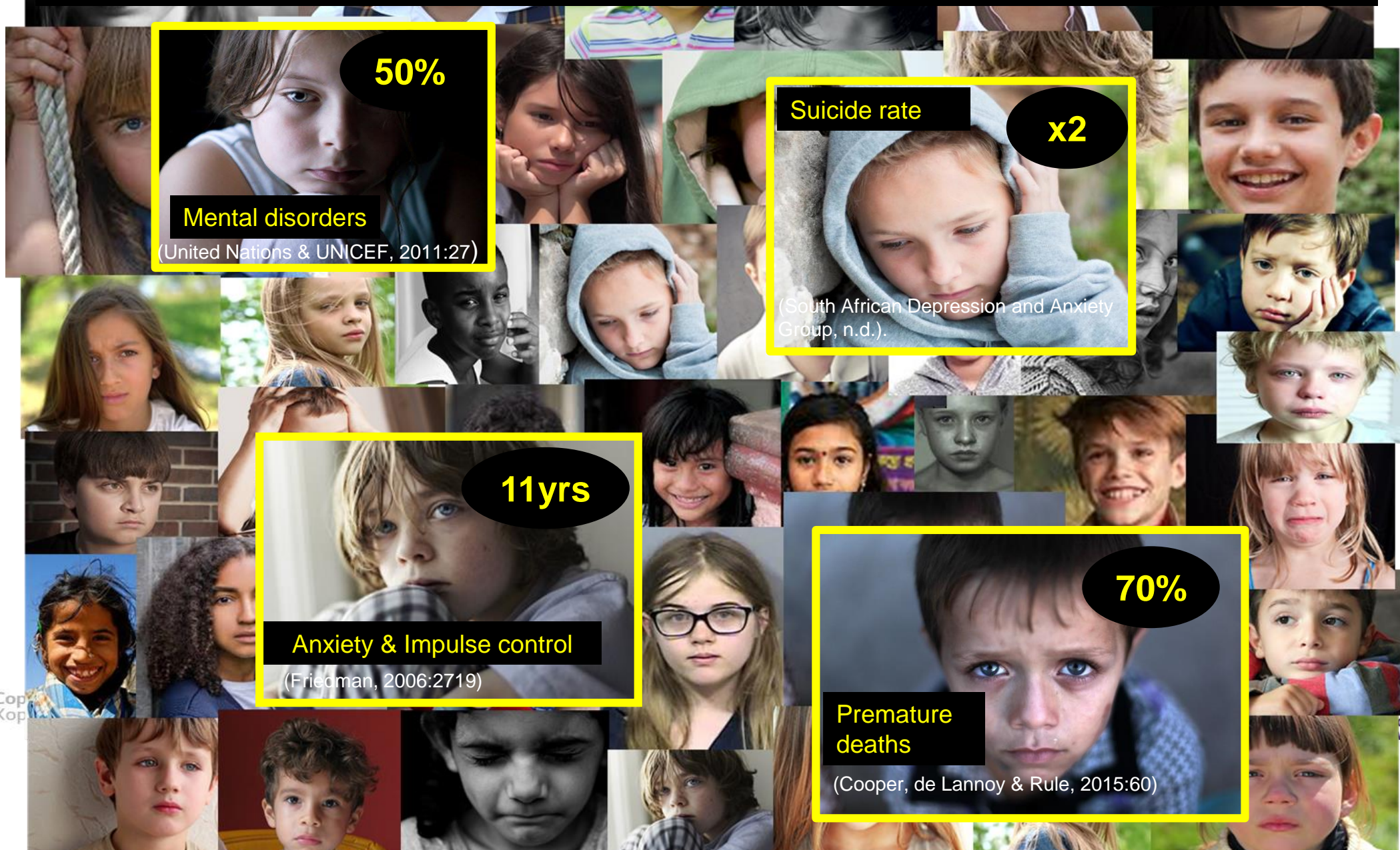


10-14



15-19

Global Statistics



50%
Mental disorders
(United Nations & UNICEF, 2011:27)

Suicide rate
x2
(South African Depression and Anxiety Group, n.d.)

11yrs
Anxiety & Impulse control
(Friedman, 2006:2719)

70%
Premature deaths
(Cooper, de Lannoy & Rule, 2015:60)

The shape of adolescence is rapidly changing:

Age of onset of puberty decreases

(Sawyer et al., 2012:1630)

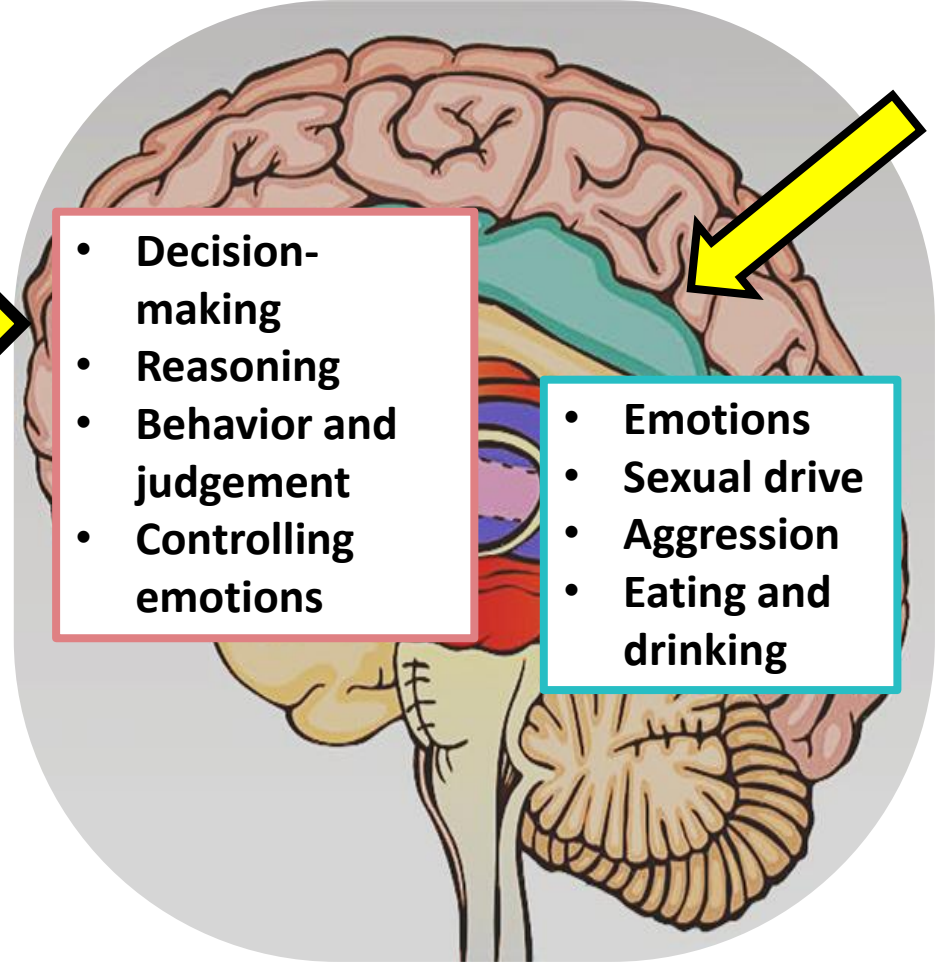
Biological maturity exceeds psychosocial maturity

(World Health Organization, 2014)

Developmental imbalance

Early adolescents (10-14): More challenges with emotional regulation

(Sawyer et al., 2012:1633)



South African context



Emotional Regulation



Psychopathology

(Zeman et al., 2006:161).

Process
that
influence

Which
emotions

When feel

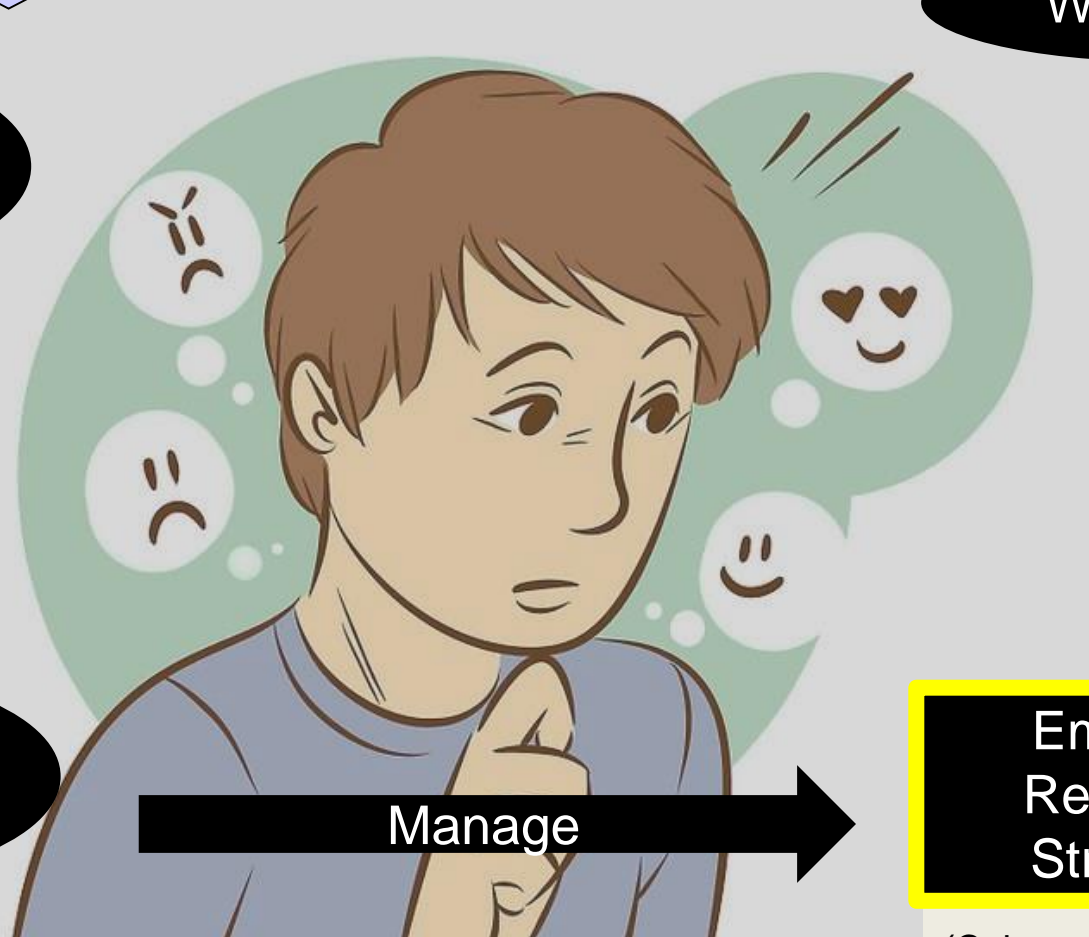
How
express

Manage

Emotional
Regulation
Strategies

(Suri et al., 2013:197)

(Cole et al., 2008:331)



Adaptive strategies

Maladaptive strategies

(Rolston & Lloyd-Richardson, 2015:1)



© Copyright reserved
Kopiereg voorbehou

School

Play

Sleep

Social Participation

Self-care

THE JOURNEY

Need arose for a way to:

- Identify problem strategies / occupations that could indicate maladaptive behaviour
- Identify occupational risks
- Available on all health care levels.

Study 1: Scale Development

Study 1

Study 2

Study 3

Way Forward...

STUDY 1: STAGE 1 OF SCALE DEVELOPMENT

Objectives

- 1 • Investigate literature and discover mechanisms to use as questions in the scale
- 2 • Compile scale and administer
- 3 • Validate scale as a measurement tool

Methodology

Design: Quantitative Descriptive

Measuring Instrument: Questionnaire

Sample: Convenience Sampling
Population → 18 and 19 year enrolled at the UFS (all campuses)
404 Completed questionnaires within 4 weeks

Construction

Closed-ended Emotion PLUS strategy

- 77 When I am angry at someone, I confront them with my feelings in person
- 78 When I am sad, I text my friends and share my feelings

78 Closed-ended
2 Open-ended

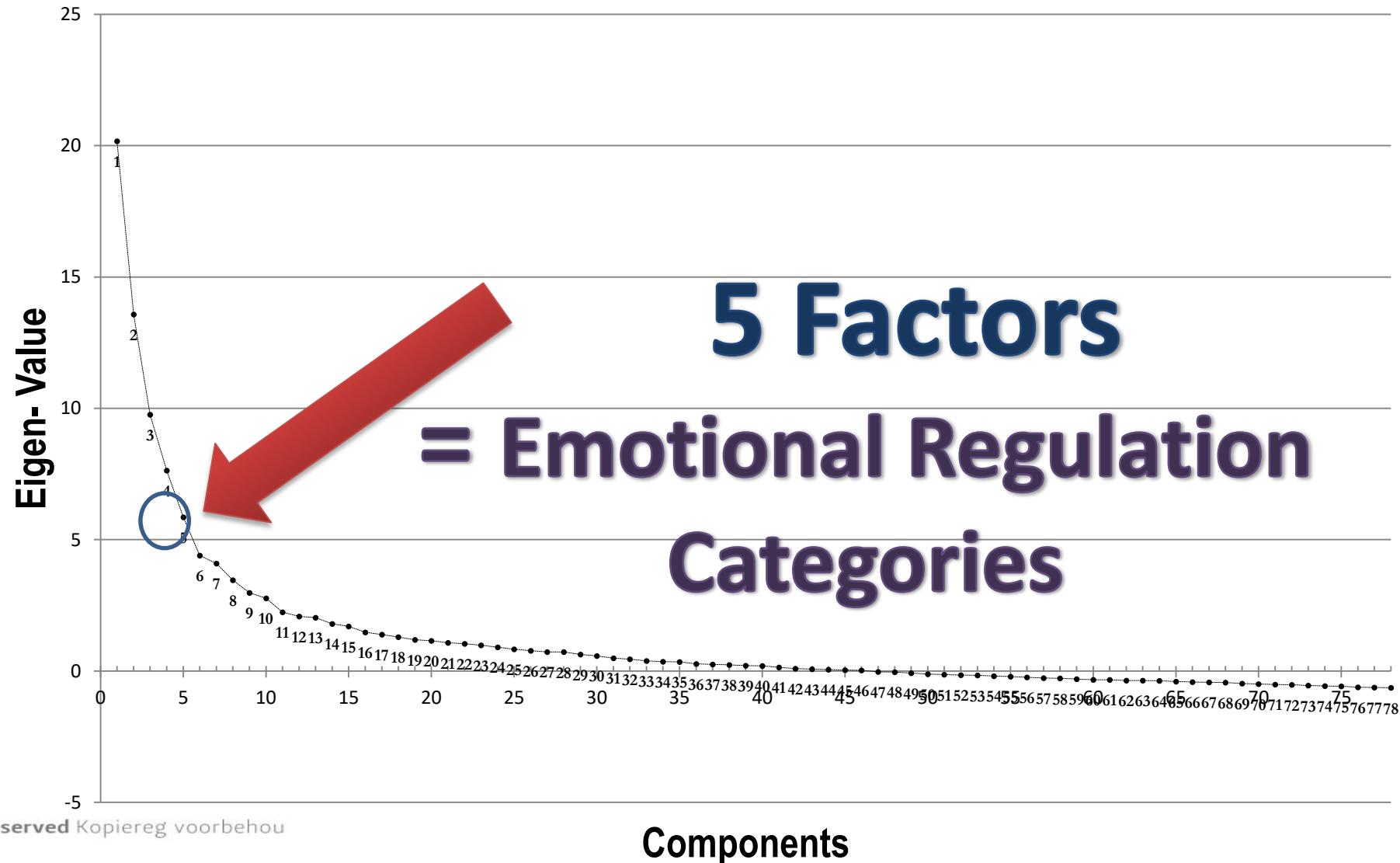
Open-ended

Describe anything else you do when you are experiencing a **negative** emotion?
Describe anything else you do when you are experiencing a positive emotion?

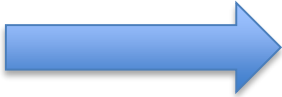
Likert Scale

- 1 – Always
- 2- Sometimes
- 3 – Seldom
- 4 -Never

Exploratory Factor Analysis Results: Scree Plot



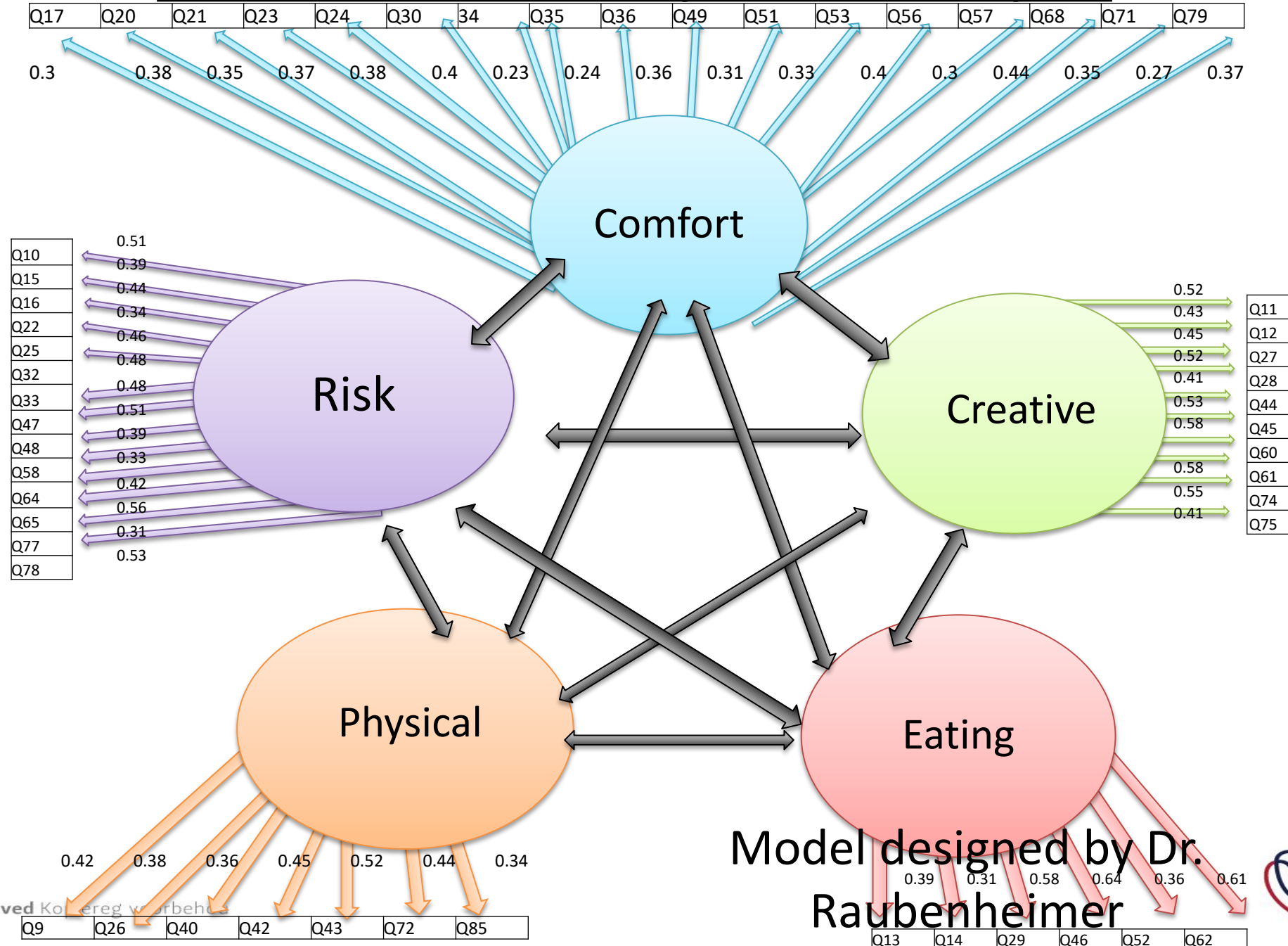
Results: Chronbach's Alpha

Reliability  0.6 - 0.8

EMOTIONAL REGULATION CATEGORIES	CHRONBACH'S ALPHA OBTAINED
Comfort and Sharing	0.81
Risky behaviour	0.83
Creative activities	0.85
Physical activities	0.74
Eating	0.80
The Scale as a whole	0.86

R
e
l
i
a
b
i
l
i
t
y

Results: Confirmatory Factor Analysis



Model designed by Dr. Raubenheimer



Results: Fit Indices

To confirm the fit of the scale

Tests	Norm	Scale Scores
Degrees of Freedom		1367
Minimum Fit function Chi-Square		1564.67
Comparative Fit Index (CFI)	>0.9	0.97
Critical N (CN)	>300	385.17
Standardized RMR	<0.1	0.061
Root Mean Square Error of Approximation (RMSEA)	0.05-0.08 (fair)	0.075
Goodness of Fit Index (GFI)	>0.9	0.85

**G
o
o
d

F
i
t**

RECOMMENDATIONS & ADAPTATION

A: Items that loaded on more than one factor / that were excluded revisited

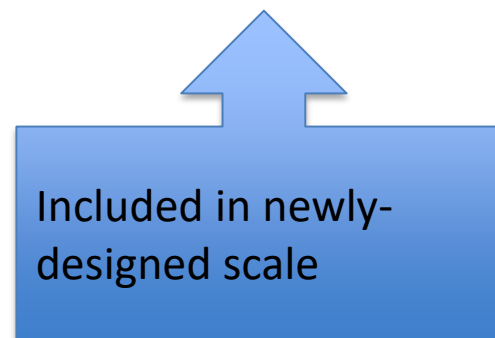
Reasons:

- Contextual questions
- Role of emotional intelligence (emotion names)
- Double meaning



B: Open – ended: VERY valuable

- Strong spiritual engagement
- Activities directly linked to psycho-pathology (eg. Hair pulling / skin picking)



Study 1 (2016)

- Quantitative, Descriptive
- Students - Late Adolescents (18,19)
- 719 participants

Study 2 (2017)

- Quantitative, Descriptive
- Primary School Children in rural setting – Early Adolescents (10-14)
- 307 participants

Study 3 (currently)

- Quantitative, Descriptive
- Adolescents age 10 – 19 living in CYCC's
- Still in process (Currently 70 participants)

Results

q9	Frequency	Percent	Cumulative Frequency	Cumulative Percent	P/I	Type of	Always	Often	Rarely	Never	TOTAL	Yes	No	High/low risk
1	264	85.99	264	85.99						44.95%	100%	55.05%	44.95%	Enabler
2	15	4.80	279	90.79						63.19%	100%	36.82%	63.19%	Enabler
										28.34%	100%	71.66%	28.34%	Low Risk
										24.43%	100%	75.57%	24.43%	Enabler
										29.32%	100%	70.69%	29.32%	Low Risk
										25.08%	100%	74.92%	25.08%	Enabler
					N	Physical Act	37.13%	21.17%	25.41%	16.29%	100%	83.71%	16.29%	Enabler
					P	Social Corr	53.75%	17.26%	22.15%	6.84%	100%	93.16%	6.84%	Enabler
					P	Social Corr	18.89%	9.77%	17.92%	53.42%	100%	46.58%	53.42%	High Risk
					N	Social Corr	7.82%	9.45%	17.26%	65.47%	100%	34.53%	65.47%	High Risk
					P	Spiritual Ei	13.68%	23.13%	25.41%	37.79%	100%	62.22%	37.79%	Enabler
					P	Physical Act	32.57%	15.96%	28.01%	23.45%	100%	76.54%	23.45%	Enabler
					P	Substance	4.22%	2.58%	5.21%	86.97%	100%	13.02%	86.97%	High Risk

1	Question	P/I	Type of Strategy	Always	Often	Rarely	Never	TOTAL	Yes	No	High/low risk
2	1 I exercise when I am angry	N	Physical Activity	10.42%	7.17%	29.32%	53.09%	100%	46.91%	53.09%	Enabler
3	2 When I am sad, I spend time in nature	N	Spiritual Engagement	21.50%	14.33%	32.57%	31.60%	100%	68.40%	31.60%	Enabler
4	3 When I feel lonely I write a song / poem	N	Creative Expression	30.29%	12.38%	20.52%	36.81%	100%	63.19%	36.81%	Enabler
5	4 When I feel down I play a musical instrument	N	Creative Expression	21.17%	12.38%	17.59%	48.86%	100%	51.14%	48.86%	Enabler
6	5 When I feel sad I eat everything I can lay hands on	N	Physical Activity	10.42%	7.17%	29.32%	53.09%	100%	46.91%	53.09%	Enabler
7	6 When I feel down, I don't want to eat	N	Self Harm	21.50%	14.33%	32.57%	31.60%	100%	68.40%	31.60%	Low Risk
8	7 I use prescription medication to help me cope with situations	N	Substance	15.31%	13.36%	15.96%	55.37%	100%	44.63%	55.37%	Enabler
9	8 When I feel happy, I eat without stopping	P	Self Harm	21.17%	16.29%	23.45%	39.09%	100%	60.91%	39.09%	Low Risk
10	9 I go out with friends when I'm feeling good	P	Social Comfort/Engagement	54.40%	15.64%	19.87%	10.10%	100%	89.91%	10.10%	Enabler
11	10 I sleep to get rid of bad feelings	N	Passive Comfort	24.43%	26.71%	25.73%	23.13%	100%	76.87%	23.13%	Low Risk
12	11 When I am angry I shout at people	N	Verbal Expression	21.82%	9.12%	21.50%	47.56%	100%	52.44%	47.56%	Low Risk
13	12 When I am down, I share it on social media (Facebook, WhatsApp)	N	Verbal Expression	14.01%	10.10%	14.66%	61.24%	100%	38.77%	61.24%	Enabler
14	13 When I feel depressed, I spend a lot of time browsing the internet	N	Passive Comfort	11.73%	13.36%	21.82%	53.09%	100%	46.91%	53.09%	Low Risk
15	14 When I feel happy, I engage in quiet time/meditation	P	Spiritual Engagement	24.10%	19.54%	29.90%	26.38%	100%	73.54%	26.38%	Enabler
16	15 I cry when I feel unhappy	N	Verbal Expression	43.00%	20.85%	22.80%	13.36%	100%	86.65%	13.36%	Enabler
17	16 When I am sad I go on social media and check if someone "likes" my posts	N	Social Comfort/Engagement	8.47%	13.03%	16.94%	61.56%	100%	38.44%	61.56%	Low Risk
18	17 I engage in religious activities when I feel content	P	Spiritual Engagement	28.99%	24.76%	28.99%	17.26%	100%	82.74%	17.26%	Enabler
19	18 I take part in sport/physical activity when I feel good	P	Physical Activity	51.47%	19.22%	21.17%	8.14%	100%	91.86%	8.14%	Enabler
20	19 When I experience unpleasant emotions, I talk to someone about it	N	Verbal Expression	27.04%	18.24%	27.04%	27.69%	100%	72.32%	27.69%	Enabler
21	89 When I am upset, I tend to pull pieces of hair from my head	N	Self Harm	8.74%	7.17%	10.10%	74.27%	100%	26.01%	74.27%	Low Risk
22	21 I do a creative activity when I feel excited	P	Creative Expression	31.27%	25.08%	30.94%	12.70%	100%	87.29%	12.70%	Enabler
23	22 I like discussing my happy feelings with those close to me	P	Verbal Expression	41.04%	24.10%	22.48%	12.38%	100%	87.62%	12.38%	Enabler
24	23 I read a book when I feel relaxed	P	Passive Comfort	43.00%	20.52%	25.08%	11.40%	100%	88.60%	11.40%	Enabler
25	24 When I am worried I smoke cigarettes	N	Substance	4.56%	4.23%	4.56%	86.64%	100%	13.35%	86.64%	Low Risk
26	25 I withdraw from situations I feel I can't handle	N	Avoidance	15.96%	17.59%	37.13%	29.32%	100%	70.68%	29.32%	Low Risk
27	26 I watch a television series when I am in a good mood	P	Passive Comfort	42.67%	25.08%	23.45%	8.79%	100%	91.20%	8.79%	Low Risk
28	27 When I am sad, I try to keep busy with things that draws my attention away	N	Avoidance	35.50%	26.38%	23.78%	14.33%	100%	85.66%	14.33%	Low Risk

T: +27(0)51 40

Copyright Kopiereg

S-UV
SCIENCES
HEIDSWETENSAPPE

SOME RESULTS TO NOTE

Both Studies	
+++ Spiritual Engagement	+++Avoidance
++ Music Listening	++Substance Use
++ Socialising with friends	++Self-harm
	+ Sexual engagement

- Children view their religion as a source of hope (Yendork & Somhlaba, 2017)
- Spirituality, regardless of religion enables adolescents to cope with psycho-social adjustment (Bryant-Davis et al, 2012)
- Adolescents perceive prayer as something that provide them with feelings of connectedness and safety , “spiritual jacket” (Dill, 2017)

- Avoidance positive in moment – effect thereof negative (Goldin et al, 2007)
- Self-harm as indicator of possible psychopathology (Snorrason et al, 2012)
- Maladaptive strategies - Barrier to occupation (Pierce, 2003)

WAY FORWARD

Implement on other diverse adolescent phases & contexts



Reliability testing of all items on all groups' data (Cronbach Alfa, Scree Plots)



Design final draft



Pilot in diverse health settings



Review & Adapt

Open-ended Question- Response from participant

I cry it off, which does not help but it is the only quick solution to get myself out of the reality. I do not consume alcohol a lot and it does not help much as well. Crying is the only solution I turn to. It helps me calm down because I bottle up too many emotions and when I cry I allow space for more emotions to be piled up... it's an

endless cycle and to be honest I am tired of it. **I have been talking myself into getting help but somehow I think that it's 'normal' to behave like this.** I am not really sure how much is too much to answer with but I can conclude that **I do**

have a problem. Suicide sometimes excites me and I am scared of someone telling me that I am bipolar or am suffering from depression, the truth hurts.

If you are reading this, this is my cry for help. The only problem is that I do not know how to confess to someone and just admit that I will most certainly attempt suicide for the second time... It has gone as far as asking my mother to let me go in peace because I do not want to deal with all that is happening around me, it isn't worth it. Besides, she is the one that contributed to the misery that is filled in my life. The trip to the Health and Wellness center is the most frightening yet. In good hopes, sometime this week I will make my way there. I am sorry if I went out of the scope.

LIST OF REFERENCES

- American Occupational Therapy Association. 2014. Occupational Therapy Practice Framework: Domain and Process (3rd Edition). *American Journal of Occupational Therapy*. 68(Supplement_1):S1–S48. DOI: 10.5014/ajot.2014.682006.
- Cole, P.M., Martin, S.E. & Dennis, T.A. 2004. Emotion Regulation as a Scientific Construct : Methodological Challenges and Directions for Child Development Research. 75(2):317–333
- Fouché, L. & Wegner, L. 2014. Specific Occupational Therapy Intervention with Adolescents. In *Occupational Therapy in Psychiatry and Mental Health*. 5th ed. R. Crouch & V. Alers, Eds. West Sussex: Wiley Blackwell. 276–294.
- Friedman, R. 2006. Uncovering an Epidemic -Screening for Mental Illness in Teens. *The New England Journal of Medicine*. 355(26):2717–2719. DOI: 10.1056/NEJMp068262.
- Rolston, A. & Lloyd-Richardson, E. 2015. *What is Emotion Regulation and How do We do it?* Ithaca.
- Cooper D, de Lannoy A, Rule C. Youth health and well-being: Why it matters. *South African Child Gauge*. 2015;(1):60–8.
- Debnam K, Milam AJ, Furr-Holden CD, Bradshaw C. The Role of Stress and Spirituality in Adolescent Substance Use. *Subst Use Misuse* [Internet]. 2016;51(6):733–41. Available from: <http://10.0.12.37/10826084.2016.1155224%5Cnhttp://login.ezproxy.lib.umn.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,uid&db=aph&AN=115009825&site=ehost-live>
- Yendork JS, Somhlaba NZ. “i am Happy because of God”: Religion and Spirituality for Well-Being in Ghanaian Orphanage-Placed Children. *Psycholog Relig Spiritual*. 2017;9:S32–9.
- Hill PC, Pargament KI. Advances in the Conceptualization and Measurement of Religion and Spirituality: Implications for Physical and Mental Health Research. *Am Psychol*. 2003;58(1):64–74.
- Dill LCJ. “Wearing My Spiritual Jacket”: The Role of Spirituality as a Coping Mechanism Among African American Youth. *Heal Educ Behav*. 2017;44(5):696–704.
- Snorrason I, Belleau EL, Woods DW. How related are hair pulling disorder (trichotillomania) and skin picking disorder? A review of evidence for comorbidity, similarities and shared etiology. *Clin Psychol Rev* [Internet]. 2012;32(7):618–29. Available from: <http://dx.doi.org/10.1016/j.cpr.2012.05.008>
- Goldin PR, McRae K, Ramel W, Gross JJ. The Neural Bases of Emotion Regulation: Reappraisal and Suppression of Negative Emotion. *Biol Psychiatry*. 2008;63(6):577–86.
- Gross JJ, John OP. Individual Differences in Two Emotion Regulation Processes: Implications for Affect, Relationships, and Well-Being. *J Pers Soc Psychol*. 2003;85(2):348–62.



Thank You
Dankie

T: +27(0)51 401 9111 | info@ufs.ac.za | www.ufs.ac.za

© Copyright reserved
Kopiereg voorbehou

UNIVERSITY OF THE
FREE STATE
UNIVERSITEIT VAN DIE
VRYSTAAT
YUNIVESITHI YA
FREISTATA



UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSAPPE