

Predictors of Orphanage Residents' Life Satisfaction: Basic Psychological Needs and Cognitive Emotion Regulation

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The present study examined life satisfaction, basic psychological needs (autonomy, competence and relatedness) and cognitive emotion regulation strategies among Pakistani orphanage residents (8-17 years). For study, 372 residents comprised the sample of study, from three orphanage types. 123 residents of Pakistan Sweet Home (PSH), 128 residents of children's village and 121 residents of local orphanages completed the assessment battery consisted to Student Life Satisfaction Scale (SLSS; Huebner, 1991), Basic Psychological Need Satisfaction and Frustration Scale-Child version (NSF; Van der Kaap-Deeder et al., 2015) and Cognitive Emotion Regulation Questionnaire-Kids (ERQ; Granefski, Rieffe, Jellesma, Terwogt, & Kraaij, 2007). Analysis indicated relationship of study variables: life satisfaction, psychological needs and strategies of cognitive emotion regulation. Life satisfaction was positively predicted by relatedness satisfaction and autonomy satisfaction. However, unfulfilled relatedness need, and catastrophizing were negatively predicting satisfaction with life. Findings may be implicated for provision of better environment in orphanages of Pakistan.

Keywords. Basic psychological need, life satisfaction, cognitive emotion regulation, orphanage resident

Pakistan is one of top ten countries having highest number of orphans (Human Relief Foundation, 2014). According to estimation,

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4.2 million orphans reside in Pakistan (Ahmad, 2019). Most of the orphans in Pakistan have inadequate basic needs including food, shelter, education and health (Global Orphan Relief, 2013). In a developing country, like Pakistan, where above 40% of population are living underneath destitution line (Rana, 2019), loss of parents could drastically change the life of children by ending up living in orphanage. Orphanage could provide food and shelter to children; however, for their well-being, it is necessary to fulfill their psychological needs.

Psychological needs contentment is associated to mental growth. Ryan (1995) considered them as central conditions/inputs for integrity and sound psychological development. One of self-determination theories, Basic Psychological Need Theory (BPNT), underscored the significance of basic psychological needs. BPNT states that there are three basic psychological needs: competence, autonomy, and relatedness. BPNT further postulates that these necessities are major for development and mental prosperity. Ryan and Deci (2000) also found that fulfillment of fundamental mental needs is significant for inspiration as well as basic for prosperity and quality

Ryan and Deci (2000) research indicates that satisfaction of each psychological need contributes differently and seems vital for effectual working and psychological growth. However, psychological needs if not fulfilled could have effect on well-being (Verstuyf, Vansteenkiste, Soenens, Boone, & Mouratidis, 2013). Hence, psychological needs satisfaction or frustration influence mental health differently. Fulfilment of individual's psychological need is terms as satisfaction of that specific need e.g., competence satisfaction, autonomy satisfaction and relatedness satisfaction. Alternatively, lack of gratification of any psychological need is termed as frustration of that need e.g., competence frustration, autonomy frustration, relatedness frustration.

Each basic psychological need if satisfied or frustrated distinctly contribute to mental health. Therefore, satisfaction/frustration of each need (competence, autonomy, relatedness) is explicitly described. Satisfaction of competence is to feel being fit to accomplish wanted outcomes, while sentiments of disappointment and questions about one's capacity is competence frustration (Ryan, 1995). Satisfaction of autonomy is referred to sense of freedom in choice and do task, whereas autonomy frustration is self-imposed pressure or sentiment of being constrained by outer powers. Relatedness satisfaction is feeling close to others and being connected, contrarily sentiments of being separated and avoided from connections are portrayed as relatedness dissatisfaction/frustration (Chen et al., 2015). Subsequently, either

fulfillment/satisfaction or dissatisfaction/frustration of every essential mental need unmistakably add to mental health.

According to Verstuyl et al. (2013) basic psychological needs satisfaction positively, while their frustration negatively impacts psychological health. Psychological health could be affected in case of either frustration or satisfaction of basic psychological needs. Self-determination theory states that there is optimal functioning, when circumstances are favorable and each of the three fundamental mental needs are fulfilled. Contrary to it, basic psychological need frustration was linked with well-being inconveniences (Verstuyl et al., 2013). Ryan (1995) also validated that frustration of psychological needs promotes fragmentation and hostility. However, along with satisfaction/frustration of basic psychological needs, strategies of cognitive emotion regulation could be an important determinant of orphans' satisfaction with life.

Garnefski and Kraaij (2007) defined cognitive emotion regulation strategies as deliberately and cognitively handling emotionally stimulating data. These strategies are not related to what people do in stressful event and negative emotional state but what they think to deal with these circumstances (Garnefski, Kraaij, & Spinhoven, 2001). Nine cognitive emotion regulation strategies are self-blaming, rumination, catastrophizing, other's blaming, positive refocusing, putting into perspective, acceptance, refocus on planning and positive reappraisal (Garnefski & Kraaij, 2007). Catastrophizing, self-blame, others' blame, rumination are less adaptive strategies of cognitive emotion regulation. These less adaptive strategies of cognitive emotion regulation are related to low well-being (Garnefski, Teerds, Kraaij, Legerstee & Kommer, 2003; Gross, 2001). Catastrophizing, one of less adaptive strategies, let the individual feel that they had horrendous occurring (Jermann, Linden, D'Acremont, & Zermatten, 2006). Putting into perspective being an adaptive strategy refers to thinking that incident could have been worse. Whereas, positive refocusing is adaptive strategy refers rather than contemplating the real occasion, think about pleasant and joyful issues (Gernefski et al., 2001). Making a constructive significance to occasion, that affecting self-awareness contrarily is termed as positive. Acceptance is resigning oneself to happening and accepting ones' experiences. Refocus on planning is to make a constructive significance to occasion, that affecting self-awareness contrarily (Jermann et al., 2006). Adaptive or less adaptive strategies could influence orphan's life satisfaction.

Diener, Suh, Lucas, and Smith (1999) defined life satisfaction as person's subjective and global assessment of the positivity of life as a

whole or with explicit life areas. Satisfaction with life reflects self-system's emotional aspect (Petersen et al., 1993). However, Diner defined life satisfaction as cognitive judgment of life overall (as cited in Suldo & Huebner, 2004). In other words, it is extent of positive evaluation of life's quality overall. Moreover, it is considered as degree of likeness of one's life and one of indicators of life's quality. Saris, Veenhoven, Scherpenzeel, and Bunting (1996) found that beside an indicator of physical health and mental, life satisfaction also directs in what means one flourish. Life satisfaction as term is preferred over happiness and well-being; because happiness is considered as objective, while life satisfaction as subjective. Additionally, life satisfaction refers to assessment of generally speaking life while well-being is identified with current emotions or explicit psychosomatic effects. Saris et al. (1996) preferred life satisfaction as term over subjective well-being. Hence, could better indicate orphans' mental health.

Life satisfaction of orphans in orphanages is an important concern. OECD (2014) found that living conditions and experiences determine life satisfaction. In Pakistan, unfortunately there is lack of uniformity in the facilities available and styles of living in orphanages. SOS village provide foster care system, Pakistan Sweet Home (PSH) ensures better quality of living, food and education; while the local orphanages lack foster care and facilities. Therefore, in these different living conditions evaluation of orphan's psychological needs is vital. Chen et al. (2015) explored that regardless of culture, basic psychological need fulfillment is linked with well-being and ill-being is related to frustration of these needs. Moreover, adaptive cognitive emotion regulation strategy was related with higher life satisfaction and less adaptive strategies of emotion regulation lowers life satisfaction (Gross & John, 2003; Predescu & Sipos, 2013). Additionally, difference in satisfaction was found among orphans in orphanages (Qahhar & Tahir, 2012). Hence, it could be interesting to evaluate the role of cognitive emotion regulation strategies, and psychological needs in orphanage inhabitants' satisfaction with life.

Objectives

Present study intends to explore the following objectives:

1. To explore the connection between life satisfaction, basic psychological needs and strategies of cognitive emotion regulation among orphanage inhabitants.

2. To find out the predictive role of cognitive emotion regulation and basic psychological needs in the life satisfaction among orphanages residents,
3. To explore demographic variables (i.e., age, willingness of institutionalization, meeting with parents, and stay duration) predict orphanage inhabitants' life satisfaction.

Method

Sample

Purposive sampling technique was used to recruit 372 orphanage residents. Children and adolescents of age range 8-17 years from three different orphanages in Pakistan participated in the study. From the whole sample 128 inhabitants of SOS Village, 123 inhabitants of PSH and 121 inhabitants of Local Orphanage participated in this study. Data was collected from orphanages of different cities (Lahore, Sargodha, and Islamabad).

Table 1

Demographics of Sample (N = 372)

Variables	Boys		Girls		Total	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Ages (8-17years)	229	61	143	39	372	100
SOS Village	68	53	60	47	128	34.40
Local Orphanage	66	55	55	45	121	32.5
Pakistan Sweet Home	95	77	28	23	123	33.06
Mother Deceased	31	62	19	38	50	13.4
Father Deceased	140	67	70	33	210	56.45
Both Parents alive	29	59	20	41	49	13.1
Both Parents Deceased	25	46	29	54	54	14.5
Separation of parents	2	67	1	33	3	0.8
Willingness for institutionalization						
No	64	17.20	60	16.12	124	33.2
Yes	161	43.27	76	20.43	237	63.5
Meeting parents /relatives						
No	18	4.83	14	3.76	32	8.60
Yes	211	56.72	129	34.67	340	91.35

Table 1 shows demographics of the sample. Mean age for children and adolescents was 12.53, with standard deviation of 2.46. There was almost equal representation of participants from different orphanages (SOS, PSH and Local). Most of orphanages inhabitants were there due to loss of father. Additionally, majority of participants meet their living parent/ relative and living in orphanage willingly.

Instruments

Basic Psychological Need Satisfaction and Frustration Scale - Child Version (NSF). It was developed by Van der Kaap-Deeder et al. (2015). Basic psychological needs assessment was done by NSF scale. This is a simplified version for children's basic psychological needs assessment and has been adapted from Psychological Needs Satisfaction and Frustration Scale developed by Chen et al. (2015). There are total 24 items and 6 subscales scale. The six subscales are: Competence satisfaction, autonomy satisfaction, relatedness satisfaction, competence satisfaction, autonomy frustration, and relatedness frustration. Each subscale consisted of four items. NSF scale is a 5-point rating scale, range from *completely untrue* = 1 to *completely true* = 5. For this study, Urdu translation of scale was done by authors of this study (Shouket & Dildar, 2015).

Cognitive Emotion Regulation Questionnaire-Kids (ERQ). It was developed by Granefski, Rieffe, Jellesma, Terwogt, and Kraaij (2007). This 36 items questionnaire assesses nine strategies of adaptive and maladaptive cognitive emotion regulation. Nine subscales are: Self-Blame ($\alpha = .79$), Rumination ($\alpha = .73$), Other's Blaming ($\alpha = .79$), Catastrophizing ($\alpha = .67$), Positive Refocusing ($\alpha = .79$), Acceptance ($\alpha = .62$), Refocus on Planning ($\alpha = .75$), Positive Reappraisal ($\alpha = .67$) and Putting into Perspective ($\alpha = .68$). In each subscale there are four items and have 5-point scale for rating (ranging from *Almost Never* = 1 to *Almost Always* = 5). Urdu translation of scale by Khawar (2012) was used to maximize the fluency.

Student Life Satisfaction Scale (SLSS). It was developed by Huebner (1991). Scale is used to assess the extent of overall satisfaction with life. This inventory is designed for children of age 8-18 years. It is comprised of total seven questions. Responses for SLSS range from *strongly disagree* = 1 to *strongly agree* = 6, on six-point rating scale. SLSS is highly reliability ($\alpha = .70 - .86$). SLSS was translated by authors into Urdu (Shouket & Dildar, 2015) for the study.

Procedure

Sample was taken from orphanages of three cities of Pakistan (Lahore, Sargodha, and Islamabad). Firstly, authorities of three different orphanages (SOS Village, PSH, Local orphanages) were approached and permission was taken. After getting permission from institutes' heads, orphanage residents were personally approached for their consent of participation. Those residents who gave written consent for participation, were briefed the objectives of research and instructions for filling the questionnaire were given. Demographic sheet was given to participants to take their personal data. In case of difficulty in filling the questionnaires, researcher orally present questions to participants and recorded their responses.

Results

Table 2
Psychometric Properties of Questionnaires (N = 372)

Scales	<i>k</i>	<i>M</i>	<i>SD</i>	<i>α</i>	Ranges		Skew
					Potential	Actual	
Autonomy Satisfaction	4	15.22	2.87	.50	4-20	4-20	-.26
Relatedness Satisfaction	4	15.35	2.98	.44	4-20	4-20	-.32
Competence Satisfaction	4	16.13	2.87	.54	4-20	4-20	-.49
Autonomy Frustration	4	12.34	3.54	.54	4-20	4-20	-.32
Relatedness Frustration	4	10.68	3.49	.40	4-20	4-20	.22
Competence Frustration	4	12.56	3.03	.32	4-20	4-20	.05
Self-blame	4	10.76	3.64	.60	4-20	4-20	.32
Rumination	4	11.82	3.20	.41	4-20	4-20	.14
Catastrophizing	4	11.51	3.56	.53	4-20	4-20	.25
Other Blame	4	9.51	3.41	.50	4-20	4-20	.27
Acceptance	4	11.21	3.26	.40	4-20	4-20	.25
Positive Refocusing	4	13.89	3.23	.40	4-20	4-20	-.23
Refocus on planning	4	12.89	3.32	.42	4-20	4-20	-.03
Positive Reappraisal	4	13.21	3.38	.42	4-20	4-20	-.21
Putting into Perspective	4	12.27	3.46	.41	4-20	4-20	.01
SLSS	7	27.29	6.21	.62	7-42	6-36	-.93

Note. SLSS = Student Life Satisfaction Scale; Skew = Skewness; Standard error (ES) for all the scales and subscales = .12.

Table 2 displays psychometric properties of questionnaires used in study. Most of the subscales of NSF scale had adequate reliability, however, few had relatively low (relatedness frustration, competence frustration). Moreover, subscale of NSF was adequate while overall version's reliability is sound ($\alpha = .75$). Reliability of SLSS ($\alpha = .62$) was adequate.

Correlations Between Basic Psychological Needs, Cognitive Emotion Regulation, and Student Life Satisfaction

Overall analysis presented in Table 3 (see page 501) indicates life satisfaction was positively related to satisfaction subscales of NSF scale and adaptive scales of ERQ. For example, SLSS had significant positive relationship with competence satisfaction, autonomy satisfaction, relatedness satisfaction and positive refocusing. Life satisfaction was negatively related to frustration subscale of NSF scale (e.g. Relatedness frustration) and less adaptive subscale of ERQ (catastrophizing). Moreover, satisfaction subscales of NSF scale were positively related to adaptive scales of ERQ. Satisfaction of autonomy was positively related to refocusing planning, positive refocusing and positive reappraisal. Similarly, frustration of autonomy had positive association with self-blame, rumination, other blaming and catastrophizing.

Table 3

Correlations between subscales of NSF scale, ERQ and SLSS scale (N = 372)

Scales	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.AS	-	.15	.34**	.02	.44**	.1	.29	.06	.19**	.21**	.12*	.17**	.09	.06	.00	.16**
2.AF		-	-.00	.32**	-.06	.32**	.15**	.14**	.15**	-.01	.07	.05	.11*	.19**	.25**	-.07
3.RS			-	-.17**	.37**	.08	-.03	.05	.07	.15**	.04	.11*	.05	-.05	-.04	.22**
4.RF				-	-.27**	.23**	.09	.14**	.07	-.08	-.01	.01	.01	.08	.16**	-.19**
5.CS					-	-.15**	-.05	.00	.11*	.31**	.23**	.23**	.07	-.02	-.02	.11**
6.CF						-	.22**	.24**	.26**	-.00	.06	.07	.08	.19**	.12*	.53
7.SB							-	.29**	.33**	.11*	.06	.22**	.36**	.46**	.26**	-.05
8.AC								-	.27**	.14**	.17**	.23**	.28**	.29**	.34**	-.01
9.RU									-	.23**	.41**	.27**	.32**	.39**	.28**	-.06
10.PR										-	.32**	.34**	.27**	.12*	-.00	.12*
11.RP											-	.31**	.29**	.22**	.12*	-.01
12.PR												-	.28**	.23**	.15**	-.01
13.PP													-	.43**	.16**	.01
14.CA														-	.30**	-.11*
15.OB															-	-.04
16.SLSS																-

Note. AS= Autonomy Satisfaction; AF= Autonomy Frustration; RS= Related Satisfaction; RF= Related Frustration; CS= Competence Satisfaction; CF= Competence Frustration; SB= Self-blame; AC=Acceptance; Rumination = RU; PR= Positive Refocusing; RP= Refocus on Planning; Positive Reappraisal; PP= Putting into Perspective; CA= Catastrophizing; OB=Other Blame; SLSS; Student Life Satisfaction Scale.

* $p < .05$. ** $p < .01$.

Predicting Role of Need Satisfaction and Frustration in Students Life Satisfaction

Table 4
Multiple Regression Analysis for subscales of NSF as Life Satisfaction's predictor (N = 372)

Variables	B	SE	β	95% CI	
				LL	UL
Constant	23.99***	2.91		18.26	29.71
Autonomy Satisfaction	.28*	.13	.13	.031	.52
Relatedness Satisfaction	.37**	.12	.17	.132	.60
Competence Satisfaction	-.13	.13	-.06	-.393	.13
Autonomy Frustration	-.03	.10	-.02	-.223	.16
Relatedness Frustration	-.29**	.10	-.16	-.49	-.09
Competence Frustration	-.07	.11	-.03	-.290	.15
R ²	.08				
ΔR^2	.07				
F (6, 365)	5.80***				

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 4 shows Multiple Regression analysis by enter method to predict life satisfaction by NSF subscales. Relatedness satisfaction and autonomy satisfaction (significantly positively predict life Satisfaction. On the other hand, relatedness frustration was significant negative predictor of life satisfaction. Moreover, NSF subscales were found significant predictor of life satisfaction and source of 8% variance in satisfaction with life.

Table 5
Multiple Regression Analysis for ERQ subscales as Predictor of Life Satisfaction (N = 372)

Variables	B	SE	β	95% CI	
				LL	UL
Constant	23.98***	2.91		18.25	29.72
Self-blame	-.03	.11	-.02	.031	.52
Other Blame	.01	.11	.01	-.22	.16
Catastrophizing	-.22**	.11	-.12	.03	.52
Rumination	-.10	.12	-.05	.13	.60
Acceptance	.02	.11	.01	-.22	.16
Positive Refocusing	.29	.11	.151	-.49	-.09
Refocus on planning	-.05	.11	-.03	-.39	.12
Positive Reappraisal	-.07	.11	-.04	-.29	.15
Putting into Perspective	.12	.11	.07	18.25	29.71
R ²	.03				
ΔR^2	.02				
F (9, 362)	1.16				

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit. ** $p < .01$. *** $p < .001$.

Table 5 exhibits Regression analysis by enter method for subscales of ERQ on life satisfaction. Catastrophizing negatively predict life satisfaction among orphanage residents ($p < .01$). However, this model was nonsignificant and contributes only 3% variance in life satisfaction.

Regression analysis by Enter method was done for demographic variables presented in Table 6. This model significantly predicts life satisfaction and cause 5% variance. Additionally, orphanage residents' willingness for institutionalization significantly negatively and meetings alive parent/relatives significantly positively predict life satisfaction.

Table 6

Multiple Regression Analysis for Age, Willingness, Meeting and Duration of Stay as Life Satisfaction's predictors (N = 372)

Variables	B	SE	β	95% CI	
				LL	UL
(Constant)	27.88***	2.10		23.74	.03
Orphanage residents' age	.01	.01	.08	-.00	-.42
Willingness of institutionalization	-1.62**	.61	-.14	-2.82	5.69
Meeting alive Parent/relatives	3.46**	1.14	.16	1.22	.06
Stay duration	-.23	.15	-.09	-.53	32.01
R^2	.05				
ΔR^2	.04				
$F(4, 367)$	4.39**				

Note. CI = Confidence Interval; LL = Lower Limit; UL = Upper Limit.

* $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

The study investigated role of emotion regulation and psychological needs in orphanage residents' life satisfaction. Sample of the study was taken, using purposive sampling technique, from three different orphanages (SOS Village, PSH, Local Orphanages) located in three cities of Pakistan (Lahore, Islamabad, Sargodha). Data for the study was collected, using self-report inventories, from 372 orphanage residents and analyzed.

First objective was to see relationship between life satisfaction, basic psychological needs and strategies of cognitive emotional regulation among orphanage residents. Correlation analysis indicated significant relationship between subscales of NSF, ERQ and SLSS

scale (Table 3). Hence, it was inferred that, life satisfaction of orphanage residents increases, when psychological needs are fulfilled. Similarly, Chen et al. (2015) found that life satisfaction is associated with fulfillment of psychological needs. Moreover, correlation analysis also revealed that relatedness frustration is linked with low life satisfaction. Likewise, Chen et al. (2015) also evaluated ill-being related to frustration of relatedness need. Additionally, positive refocusing increase and catastrophizing lowers life satisfaction. These findings were in line with Subramanian and Nityanandan (2008) research that found that refocusing on positive develops optimistic life perspective. Furthermore, competence and autonomy if satisfied increase the level of relatedness. Similarly, Deci and Ryan (1985) state that feeling of being independent and competent drive interaction. Correlation analysis also revealed that adaptive strategies of emotion regulation were associated to basic psychological needs satisfaction, while less adaptive emotion regulation strategies linked to frustration of psychological needs. These findings were validated by the research that found negative relationship between catastrophizing with satisfaction of basic psychological need (Lu, Uysal, & Teo, 2011).

Basic psychological needs were hypothesized to predict orphanage inhabitant's satisfaction with life. Results of the study demonstrated that satisfaction of autonomy and relatedness were positive, whereas, frustration of relatedness need was negative predictor of orphanage residents' satisfaction with life (see Table 4). Likewise, literature illustrates that feeling to independence among children increases their satisfaction with life (Kasser & Ryan, 1999). Moreover, especially in adolescent's, the age of sample, satisfaction with life increases if individual feel related in this transition stage. Individual's physical and mental presence, especially in critical phase of life could be an important contributor of life satisfaction (Hollified & Conger, 2015; Simpson, McArthur, & Dworkin, 2012).

Life satisfaction was non significantly predicted by strategies of emotion regulation. Catastrophizing was the only strategy of cognitive emotion regulation that negatively predicts life satisfaction (see Table 5). In other words, over emphasizes of problems or generalization can reduce the orphanage resident's satisfaction with life. Orphanage residents, who have accepted their life without catastrophizing circumstances, have higher level of life satisfaction; research also indicates lower life satisfaction was related to catastrophizing (Fishman, 2012). This finding highlights the importance of psychological services for orphanage residents. Mental health services

for orphanage residents at the right time may improve their satisfaction with life by reducing the use of catastrophizing.

Prediction of life satisfaction from age, willingness to come institution, duration of stay in orphanage, meeting with parents and relatives was evaluated as hypothesized (see Table 6). Orphanage resident's will of being institutionalized was found to be an important life satisfaction predictor. In other words, orphanage residents who want to stay at orphanage are increasingly happy with their life contrasted with those who are living in orphanage unwillingly. Similarly, Tan (*n.d.*) found link between life satisfactions and will of institutionalization. Additionally, meeting alive parent/relative also predict their satisfaction with life. Mahanta and Aggarwal (2013) research validate the findings. It states that meeting loved ones, such as parents, could develop sense of social support that leads to satisfaction with life.

Limitations and Suggestions

Psychological needs, cognitive emotion regulation and life satisfaction was not explored among orphans that were not institutionalized. Comparison of psychological needs, cognitive emotion regulation and life satisfaction of institutionalized and non-institutionalized orphans could provide a detailed picture of institutionalization. In future studies it should be explored. Quantitative research methodology can be used to identify factors of life satisfaction in detail.

Conclusion

It is concluded that orphanage inhabitants' life satisfaction, basic psychological needs and strategies of emotion regulation are associated. Moreover, autonomy satisfaction and relatedness satisfaction are significant positive predictor of orphanage resident's satisfaction with life. However, catastrophizing, strategy of cognitive emotion regulation, significantly negatively predict life satisfaction among orphanage residents. Additionally, meeting alive parents/relatives was positive and willingness for institutionalization was significant negative predictor of orphanage residents' life satisfaction.

References

- Ahmad, A. (2019, June 2). *Body to formulate standards for orphanages*. The Dawn. Retrieved from <https://www.dawn.com/news/1491540>

- Chen, B., Vansteenkiste, M., Beyers, W., Boone, L., Deci, E. L., Van der Kaap-Deeder, J., & Verstuyf, J. (2015). Basic psychological need satisfaction, need frustration, and need strength across four cultures. *Motivation and Emotion, 39*(2), 216-236. Retrieved from <http://link.springer.com/article/10.1007%2Fs11031-014-9450-1>
- Deci, E. L., & Ryan R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- Diener, E., Suh, E. M., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125* (2), 276-302.
- Fishman, S. M. (2012). *Bonica's management of pain*. Lippincott: Williams & Wilkins.
- Garnefski, N., & Kraaij, V. (2007). The cognitive emotion regulation questionnaire: psychometric features and prospective relationships with depression and anxiety in adults. *European Journal of Psychological Assessment, 23*(3), 141-149. doi:10.1027/1015-5759.23.3.141
- Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, Cognitive emotional regulation and emotional problems. *Personality and Individual Differences, 30*(8), 1311-1327.
- Garnefski, N., Rieffe, C., Jellesma, F., Terwogt, M. M., & Kraaij, V. (2007). Cognitive emotion regulation strategies and emotional problems in early adolescents: The development of an instrument. *European Child & Adolescent Psychiatry, 16*(1), 1-9. doi:10.1007/s00787-006-0562-3
- Garnefski, N., Teerds, J., Kraaij, V., Legerstee, J., & Kommer, T.V.D., (2003). Cognitive emotion regulation strategies and depressive symptoms: Differences between males and females. *Personality and Individual Differences, 36*, 267-276.
- Global Orphan Relief (2013). *B. M. S. Orphan Care Home, Habibabad*. Retrieved from <http://www.globalorphanrelief.org/projects/bms-orphan-home-habibabad-pakistan>
- Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science, 10*(6), 214-219.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*(2), 348-362.
- Hollified, C. R., & Conger, K. J. (2015). *The role of siblings and psychological needs in predicting life satisfaction during emerging adulthood*. Retrieved from <http://eax.sagepub.com/content/early/2014/12/10/2167696814561544>
- Huebner, E. S. (1991). Initial development of the student's life satisfaction scale. *School Psychology International, 12*(3), 231-240. doi:10.1177/0143034391123010
- Human Relief Foundation (2014). *Report on world's orphans*. Retrieved from http://www.academia.edu/7765230/Report_on_World_s_Orphans.

- Jermann, F., Linden, M. V., D'Acromont, M., & Zermatten, A. (2006). Cognitive emotion regulation questionnaire (CERQ) confirmatory factor analysis and psychometric properties of the French translation. *European Journal of Psychological Assessment, 22*(2), 126-131. doi:10.1027/1015-5759.22.2.126
- Kasser, V. G., & Ryan, R. M. (1999). The relationship of psychological needs for autonomy and relatedness to vitality, wellbeing and mortality in nursing homes. *Journal of Applied Social Psychology, 29*(5), 934-954. doi:10.1111/j.1559-1816.1999.tb00133.x
- Khawar, R. (2012). *Translation of Cognitive Emotion regulation Questionnaire for kids* (Unpublished doctoral dissertation). Department of Psychology, Government College University, Lahore, Pakistan.
- Lu, Q., Uysal, A., & Teo, I. (2011). Need satisfaction and catastrophizing: Explaining the relationship among emotional ambivalence, pain, and depressive symptoms. *Journal of Health Psychology, 16*(5), 819-27. doi:10.1177/1359105310392092.
- Mahanta, D., & Aggarwal, M. (2013). Effect of perceived social support on life satisfaction of university students. *European Academic Research, 1*(6), 1083-1094. Retrieved from <http://euacademic.org/uploadarticle/72.pdf>
- OECD (2014). *Life satisfaction*, in *Society at a Glance 2014: OECD Social Indicators*. OECD Publishing. Retrieved from https://www.oecdilibrary.org/social-issues-migration-health/society-at-a-glance-2014/life-satisfaction_soc_glance-2014-27-en
- Petersen, A. C., Compas, B. E., Brooks-Gunn, J., Stemmler, M., Ey, S., & Grant, K. E. (1993). Depression in adolescence. *American Psychologist, 48*(2), 155-168.
- Predescu, E., & Sipos, R. (2013). Cognitive coping strategies, emotional distress and quality of life in mothers of children with ASD and ADHD- A comparative study in a Romanian population sample. *Open Journal of Psychiatry, 3*(2), 11-17. doi:10.4236/ojpsych.2013.32A003.
- Qahhar, W., & Tahir, S. (2012). *Quality of life and coping strategies among orphans and non-orphans' adolescents* (Unpublished master's thesis). National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.
- Rana, S. (2019, April 6). *In Pakistan, millions more to fall below poverty line*. The Express Tribune. Retrieved from <https://tribune.com.pk/story/2115274/2-millions-fall-poverty-line/>
- Ryan, R. M. (1995). Psychological needs and facilitation of integrative process. *Journal of Personality, 63*(3), 398-427. Retrieved from <http://entrevistamotivacional.pt/wp-content/uploads/2014/01/1995Ryan-Psychological-needs-and-the-facilitation-of-integrative-processes.pdf>

- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and wellbeing. *American Psychological Association, 55*(1), 68-78.
- Saris, W. E., Veenhoven, R., Scherpenzeel, A. C., & Bunting, B. (1996). A comparative study of satisfaction with life in Europe. *Eötvös University Press, 2*, 11-48.
- Shouket, H., & Dildar, S. (2015). *Psychological needs, cognitive emotion regulation and life satisfaction among orphanage children and adolescents* (Unpublished master's thesis). Department of Psychology, Government College University, Lahore, Pakistan.
- Simpson, D. M., McArthur, J. C., & Dworkin, R. H. (2012). *Neuropathic pain: Mechanisms, diagnosis, and treatment*. New York: Oxford University Press. Retrieved from https://books.google.com.pk/books?Id=1fF7pRxFzZUC&dq=Catastrophizing+Predicting+Life+Satisfaction&source=gbs_navlinks_s
- Subramanian, S., & Nithyanandan, D. V. (2008). Hardiness and optimism as moderators of the types of cognitive emotion regulation strategies among adolescents who had encountered negative life events. *Journal of Indian Health Psychology, 2*(2), 167-177.
- Suldo, S. M., & Huebner, E. S. (2004). The Role of life satisfaction in the relationship between authoritative parenting dimensions and adolescent problem behavior. *Social Indicators of Research, 66*(1), 165-195. doi:10.1023/B:SOCI.0000007498.62080.1e
- Tan, C. (n.d.). *Expatriates' life satisfaction and their willingness to stay longer in Malaysia*. Retrieved from https://www.google.com.pk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCAQFjAAahUKEwj_uPLPhNnHAhVDsxQKHZV0BNA&url=http%3A%2F%2Fiusp2009.princeton.edu%2Fpapers%2F90296&usg=AFQjCNEfLPUyqOQ8g2ebkJQ015N1RcyJA&bvm=bv.101800829,d.ZGU
- Van der Kaap-Deeder, J., Vansteenkiste, M., Soenens, S., Loeys, T., Mabbe, E., & Gargurevich, R. (2015). Autonomy-supportive parenting and autonomy-supportive sibling interactions: The role of mothers' and siblings' psychological need satisfaction. *Personality and Social Psychology Bulletin, 41*(11), 1-15.
- Verstuyf, J., Vansteenkiste, M., Soenens, B., Boone, L., & Mouratidis, A. (2013). Daily ups and downs in women's binge eating symptoms: The role of basic psychological needs, general self-control and emotional eating. *Journal of Social and Clinical Psychology, 32*(2), 335-361.

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