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Protective Factors for Subjective Well-being in Mothers of Children with Down Syndrome

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The study was conducted to understand the relationship of general self-efficacy and two aspects of social support with cognitive and affective facets of subjective well-being in mothers of children having Down syndrome in contrast to mothers of typical children. Survey was conducted with mothers of two types of children (n = 89 each). Data were collected through Generalized Self-Efficay Scale (Schwarzer & Jerusalem, 1995), Social Support Questionnaire-Short Form (SSQ-6; Sarason, Sarason, Shearin, & Pierce, 1987), and Trait Well-Being Inventory (Dalbert, 1992). It was found that with higher level of perceived available social support, the mothers of children having Down syndrome were more satisfied with their life. Further, with higher self-efficacy and higher satisfaction with the social support, mothers of both types of children were more satisfied with their life and had better mood in general. Perceived available social support benefitted mothers of children having Down syndrome only, while, satisfaction with social support and self-efficacy were protective factors for subjective well-being of mothers, in general.

Keywords. Self-efficacy, social support, Down syndrome, well-being

With the birth of every child, the mother has to make adjustments in her life. However, in case of having a special child, the situation

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becomes more challenging and stressful, especially, for the parents living in a developing country like Pakistan. It has been observed that 66% of children with disabilities belong to rural areas while 34% belong to urban areas. Out of all the children with special needs, only 4% have access to the specialized facilities (Naqvi, 2013). These figures point towards a meager condition of tangible support available for the families of these children. Therefore, due to lack of awareness and limited institutional support; mothers of these children are specifically under continuous pressure to take care of the child while looking after the households along with maintaining their own well-being.

Down syndrome is a neuro-developmental genetic disorder that is clinically diagnosed at the time of birth and is marked by certain facial peculiarities, developmental delays, and intellectual disability. Symptoms associated with Down syndrome pose significant challenges for the primary caregiver (i.e., mothers in our society). A growing body of literature shows that some protective factors, particularly, help the mothers to tackle these stressors successfully (for a review, see Hassall & Rose, 2005; Lima-Rodríguez, Baena-Ariza, Domínguez-Sánchez, & Lima-Serrano, 2018). Two of these factors mostly discussed are self-efficacy and social support. Self-efficacy denotes the confidence of a person in one's capabilities to manage and solve problems of his/her life in diverse situations. Social support refers to the perception that support is available in the time of need and satisfaction with the support. The present study aims to explore what is helpful in coping with critical life events and daily hassles. Is it most adaptive to believe that one will be successful in dealing with the problems, or to believe that one can rely on getting help? Does the answer to this question depend upon the specific burdens confronting mothers, or does it apply generally?

Self-efficacy may be considered as specific to particular area of functioning or more general in nature. Present study focuses on general self-efficacy as it has been reported to be related to more general outcomes. Studies report that in difficult circumstances individuals' self-efficacy is associated with diverse aspects of psychological well-being (Chung, AlQarni, Muhairi, & Mitchell, 2017). More specifically, self-efficacy has been observed to contribute to well-being of parents of children of different ages and issues in Israel (Lavenda & Kestler-Peleg, 2017). Similar findings were generated in studies conducted in United Kingdom. For example, a study conducted by Hastings and Brown (2002) highlighted the presence of depression and anxiety in mothers of children with some behavioral problems due to low level of self-efficacy. Likewise, Hassall, Rose, and McDonald (2005) found out that presence of high self-efficacy reduced stress level in mothers of children with

intellectual disbility. Recently, Whiting. Nash, Kendall, and Roberts (2019) also observed that interventions enhancing self-efficacy help mothers of special children to reduce their distress.

Studies conducted with people in everyday life settings yield similar findings. Maciejewski (2000) observed that stresses lead to depression only in the absence of self-efficacy in USA. In another study, self-efficacy was observed to be positively associated with life satisfaction in samples from Costa Rica, Germany, Poland, Turkey, and the USA (Luszczynska, Gutiérrez-Doña, & Schwarzer, 2005). Although, in general, lower self-efficacy has been observed in nonwestern countries than in western countries, yet, it has also been found to be adaptive in most of the nonwestern countries (Klassen, 2004). In a study conducted in Pakistan (Fatima, 2010), it was concluded that self-efficacy enhanced overall positive mood of both mothers of typical children and mothers having children with special needs

Although, belief and confidence in one's abilities to handle difficult situations of life is important, yet, support from others has also been reported to help maintain one's well-being. Social support may be classified in terms of number and type of sources for support like how many people support the person and who supports, for example, family, friends, co-workers or institutions; and the function it serves, like, emotional help, informational help, respect from others, tangible services , or satisfaction with the support (Cohen &Wills, 1985). In current research, support has been assessed in terms of number of available support and level of satisfaction with that support. There are studies which show that people in stressful situations predominantly benefit from social support. Significance of help from others has been observed for people suffering from physical illness (Zhou et al., 2010), individuals with mental health issues (Perry & Pescosolido, 2015), and children from adverse life situations (Umeda & Kawakami, 2013). Studies have shown that social support helps parents with special children. Weiss et al. (2013) observed that perceived social support from family and friends acts as buffer to reduce distress in mothers of special children in Canada. Likewise, Halstead, Griffith, and Hastings. (2018) observed perceived social support in terms of informational, instrumental, emotional, and institutional support as protective factor for both cognitive and affective well-being of mothers of having children with disabilities in United Kingdom. Alon (2019) also observed that social support helps in postcrisis growth of mothers of children with autism in Israel.

Studies comparing Asian and European cultures highlight the differential needs and effectiveness of different types of social support

in the two cultures (Sherman, Kim, & Taylor, 2009). Lin, Orsmond, Coster, and Cohn (2011) in a cross-cultural study of Taiwan and USA found that social support was associated with the mental health of mothers caring for children with autism spectrum disorder more in USA than in Taiwan. In Pakistan, Fatima (2010) observed that mothers of children having Down syndrome benefitted more from availability of support rather than from their satisfaction with the available support. In the same vein, Jamil and Khalid (2016) concluded that availability of support but, not satisfaction with support predicted less depressive symptoms in women.

In a nut shell, studies conducted with people in different cultures point to the adaptive role of self-efficacy and social support in diverse circumstances and more specifically in mothers as caregivers of children with special needs. However, most of the studies have been conducted in Western culture. In Pakistan specifically, there is scarcity of published research with reference to role of these factors in well-being of mothers with special children. Keeping in view that individuals are likely to use and benefit more from their resources in the times of need, it was hypothesized that self-efficacy and social support would be more positively related to subjective well-being of mothers living with children having Down syndrome than mothers living with their typical children only.

Method

Participants

Final sample of the study consisted of 178 mothers including 89 mothers living with their children having Down syndrome and 89 mothers living with their typical children. Overall, 157 children, clinically diagnosed having Down syndrome with age range of 4 to 16 years, were registered in 10 centers for children with special needs in Lahore. They were living with both of their parents at the time of the study. In all, 92 mothers volunteered to take part. Three mothers left the study incomplete. as they had problem in understanding the questions. Thus response, rate was 57%.

A sample of mothers having typical children was taken for comparison purpose. The mothers of two types of children were matched regarding their education, monthly family income, and age of the child. Overall 167 mothers were approached. Ten of them were not included as they had problem in understanding of questions. Four of them had at least one child with special needs, and 64 did not participate for their personal reasons. Response rate for this group was 53%.

Independent sample *t*-test was run in order to compare mothers from two groups on continuous demographic variables, while, chi-square was run for dichotomous variables. Differences were also assessed with reference to predictors and criterion variables. Mothers of children having Down syndrome were older and had more children than mothers of typical children. However, they were similar on the variables on which they were matched (see Table 1). Mothers living with typical children were similar to mothers of children having Down syndrome on main variables of the study except for life satisfaction with mothers of typical children having higher level of satisfaction with their life in comparison to mothers of children having Down syndrome.

Table 1

Comparison of Mothers of Children Having Down Syndrome and Mothers of Typical Children on Demographics and Study Variables

Variables	Mothers of children having Down syndrome *M*(*SD*)	Mothers of typical children *M*(*SD*)	*t*(176)	*p*
Age of mother (years)	40.65(7.14)	34.66 (5.64)	6.21	<.001
Education of mother (years)	10.63(3.67)	10.41 (4.04)	0.37	.71
Total number of children	4.06(1.60)	3.49 (1.48)	2.43	.02
Monthly family income (Rs in thousands:)	30.20(31.07)	29.98(26.90	0.05	.96
Age of child (years)	10.83(3.31)	10.62 (3.40)	0.42	.67
Gender of child				
Boy (n)	60	52	χ^2 = 1.54	.21
Girl (n)	29	37		
Self- efficacy	3.22(0.68)	3.16 (0.64)	0.68	.50
Availability of support	3.09(1.79)	2.66 (1.49)	1.73	.08
Satisfaction with support	3.39(0.55)	3.53 (0.57)	-1.58	.11
Life satisfaction	3.14(0.70)	3.35 (0.62)	-2.11	.04
Mood level	2.94(0.72)	3.15 (0.72)	-1.96	.05

Measures

Trait Well-Being Inventory. The measure was used to assess subjective well-being (Dalbert, 1992) with two subscales of Life Satisfaction Scale (7 items) to assess cognitive well-being and Mood Level Scale (6 items) to assess affective well-being. Response categories ranged from 1=*not at all true* to 4 = *exactly true*. Urdu adaptation of the scales (Fatima, 2004) was used. Cronbach alpha for the two subscales for the present study was .87 and .86, respectively.

Social Support Questionnaire-Short Form (SSQ-6; Sarason, Sarason, Shearin, & Pierce, 1987). Assessment of perceived social support was done through SSQ-6 which consisted of two subscales: Availability (6 items) and satisfaction (6 items). Urdu version of the questionnaire (Fatima, 2010) was used for the present study. For the Availability Subscale, mothers indicated up to nine persons who supported them. For the Satisfaction Subscale, they were asked to indicate their level of satisfaction with support with the help of a 4-point scale varying from 1 = very dissatisfied to 4 = very satisfied. Cronbach alpha of both scales was .86 for the current study

Generalized Self-Efficacy Scale. Extent of confidence of an individual to solve problems of life arising in diverse situations was assessed with Generalized Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). Urdu version of the scale (Tabbasum, Rehman, Schwarzer, & Jerusalem, 2003) was used. This scale include 10 items. Participants had to respond on the scale of 1 = not at all true, to 4 = exactly true. Cronbach alpha of the scale was .90 for the current study.

Demographic sheet. It included questions about, age, education, monthly family income, and total number of children of mother along with age and gender of child.

Procedure

After taking permission from the school authorities who had enrolled children with Down syndrome, the mothers were formally asked to take part in the study by telephone or letter by school authorities. They were explained the purpose of research and that participation was totally voluntary. Those mothers who agreed to participate were interviewed in school premises by appointment. Data were collected from sample of mothers of typical children through schools for typical children. School authorities were told about the inclusion criteria of mothers and prospective mothers were contacted through phone and were asked to participate after explaining the purpose of study. Those mothers who agreed to participate were interviewed in school premises by appointment. They were explained that items would be read to them and they would respond according to given categories and that there were no right or wrong answers and they were free to quit any time. Sitting arrangement was such that mothers could read the items themselves if they wanted to. If the participants had any question regarding the study, these were addressed at the end of questionnaire administration. Mothers took 30 to 60 minutes to respond to all questions.

Results

Bivariate correlations were calculated with Pearson Product Moment method for demographics and study variables. Demographic variables were included as possible correlates for well-being. Correlations are given in Table 2. Availability of social support was found to be positively correlated with life satisfaction and overall mood in mothers of children having Down syndrome only. However, satisfaction with social support was positively correlated with the two aspects of well-being in both mothers living with children having Down syndrome and mothers living with typical children. Self-efficacy was also found to be related positively to life satisfaction and overall mood in mothers of both types of children. None of the demographic variables were related to well-being. Therefore, they were not included in further analyses.

To see how self-efficacy and two facets of social support predicted two dimensions of well-being, hierarchical regression analyses were conducted. In first step, group was entered. In second step the availability of social support, satisfaction with social support, and self-efficacy were entered and in third step, three products of group with self-efficacy and group with two aspects of perceived social support were included to check for any moderation effects. Main effects were interpreted from second, block, while interactions were interpreted from third block. Table 3 shows the result.

The overall regression explained 33% of the variance in life satisfaction. The more the mothers were satisfied with the support, the more they were satisfied with their life. Their self-efficacy also positively predicted life satisfaction. In addition, mothers of typical children had higher life satisfaction than mothers of children having Down syndrome. Interaction of availability of support and group predicted life satisfaction. Simple slope analysis (Dawson, 2014) was used to see difference of prediction of life satisfaction by availability of support in the two groups, separately. The results are depicted in Table 3 and in Figure 1.

Among the mothers of children having Down syndrome those who perceived that they had more number of people supporting them had higher level of life satisfaction, B = .10, p =.002. However, this relationship was not observed in mothers living with their typical children, B = -.03, p =.054.

Table 2

Correlations for Demographics and Study Variables for Mothers of Children Having Down Syndrome (Upper Diagonal) and Mothers of Typical Children (Lower Diagonal)(N = 178)

	Variables	1	2	3	4	5	6	7	8	9	10	11
1	Age of mother		.01	.24*	.12	.31**	.14	.05	-.00	.00	.03	-.04
2	Education of mother	-.04		-.52***	.42***	-.21	-.15	.27*	-.12	-.07	-.01	.05
3	Number of children	.23*	-.44***		-.21*	.18	.14	-.05	.17	.11	.09	-.07
4	Monthly family Income	.15	.36***	-.05		-.08	-.14	.23*	-.10	-.16	.09	.04
5	Age of child	.51***	-.21*	.29**	-.07		.04	-.01	.06	.11	.07	.15
6	Gender of child	-.10	.16	.15	-.02	-.07		-.02	-.10	.12	-.06	.05
7	Availability of support	.20	.20	-.09	.14	.03	-.13		.14	.01	.30**	.26*
8	Satisfaction with support	.24*	-.20	.19	-.15	.21*	-.15	.18		.47***	.52***	.36***
9	Self-efficacy	.10	-.24*	.16	-.13	.31**	-.08	-.20	.48***		.38***	.40***
10	Life satisfaction	.09	.00	-.01	.06	.19	-.18	-.03	.50***	.38***		.59***
11	Mood level	.09	-.02	.01	.02	.15	.01	-.06	.46***	.48***	.75***	

Note. *n = 89 each*.Education of mother in years. For gender of child, 0 = boy; 1 = girl.
*p< .05.**p < .01. ***p <.001.

Table 3

Results for Hierarchical Regression for Predictors of Subjective Well-being (N = 178)

	Life Satisfaction			*Mood level*		
Predictors	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Constant	3.14	3.16	3.15	2.94	2.94	2.93
Group	0.21*	0.18*	0.29	0.21	0.22*	-0.34
Availability of support		0.05	0.20**		0.05	0.09*
Satisfaction with support		0.47***	0.52***		0.27**	0.24
Self-efficacy		0.20**	-0.04		0.36***	0.32**
Group × Availability of support			-0.13*			-0.12
Group × Satisfaction with support			-0.04			0.16
Group × Self efficacy			0.04			0.03
ΔR^2	.02	.29***	.02	.02	.25***	.02

Note. Group, 0 = *mothers of children with Down syndrome*, 1 = *mothers of typical children*.
*$p < .05$. **$p < .01$. ***$p < 001$.

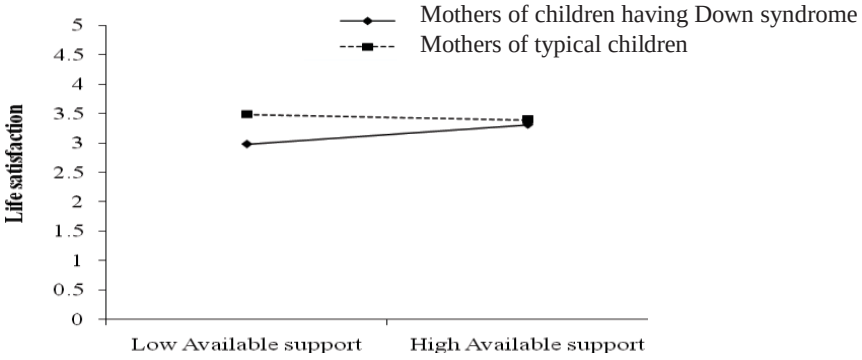

Figure 1. Availability of support as a predictor of satisfaction with life in mothers of children having Down syndrome and typical children.

Variance explained in overall mood was 29%. Self-efficacy and satisfaction with social support positively predicted overall mood. Moreover, no interaction was significant indicating that self-efficacy and social support predicted mood level similarly in the two groups. However, mothers of typical children had better overall mood than mothers of children having Down syndrome.

In a nutshell, general self-efficacy along with satisfaction with social support positively predicted cognitive and affective facets of subjective well-being in terms of life satisfaction and overall mood in

the mothers of two types of children, while availability of support positively predicted cognitive aspect of subjective well-being that is life satisfaction in only mothers of children having Down syndrome.

Discussion

The objective of the study was to examine the role of self-efficacy and two aspects of social support in subjective well-being of mothers living with children having Down syndrome in contrast to mothers living with their typical children and to see whether the nature of prediction would be similar or different in mothers living in two different situations. It may be concluded from the findings that self-efficacy and satisfaction with social support act as protective factors for subjective well-being in mothers living in typical situations and in difficult situations, while, availability of support is helpful for mothers living in difficult situations only.

As hypothesized, positive relationship of self-efficacy with life satisfaction and overall mood was found in mothers of both types of children. Moreover, self-efficacy also positively predicted subjective well-being with mothers having higher level of self-efficacy enjoying higher level of life satisfaction and better mood in general in line with Chung et al. (2017), Fatima (2010); Lavenda et al. (2017), Luszczynska et al. (2005), and Whiting et al. (2019). It has been observed that self-efficacy equips a person to use better coping strategies to manage different problems in life and thus enhances well-being of the individual (Lavenda et al., 2017). It seems to be even more important in a society where women cannot rely much on tangible help from others to take care of their child. According to Pakistan Economy survey 2017-18, around 2% of the total budget is spent on education. In these circumstances not much can be expected from the state to spend on care of children with special needs. Thus self-reliance becomes the main source of survival. Although, Pakistan is a collectivistic society where "us" is more important than "me", a child with intellectual disability is rarely incorporated into "us" which puts further responsibilities on mother to take care of his or her special needs.

As postulated, it was observed that availability of social support was found to be positively correlated with life satisfaction and overall mood in mothers of children having Down syndrome, but it had no relation to any well-being dimension in mothers of typical children. Moreover, perceived availability of support positively predicted life satisfaction in only mothers living with their children having Down

syndrome, thus, supporting the buffering model which states that people get more benefit from social support in times of need than in common life situations. Results are also in line with studies that emphasize role of social support in well-being of caregivers of children who suffer from physical or mental health problems (Alon, 2019; Fatima, 2010; Halstead et al., 2018; Weiss et al., 2013). Rearing a child with disability is a task which requires involvement of more efforts than rearing typical children. Thus, having help and assistance relieves the mothers from burden and distress. It has been mentioned earlier that not much tangible support is available to these mothers to rely on. However, an empathetic listening by a friend or support of family members in other affairs than taking care of child might be helpful for these Pakistani mothers in line with the argument made by Sherman, Kim, and Taylor (2009). As the current study did not take into account the type of support available to the mothers, it remains the area to be addressed by further studies.

The findings also reveal that satisfaction with available support positively predicted life satisfaction and overall mood. These results were similar for mothers of both types of children. There is a possibility that little support is required to satisfy mother of typical children while mothers of special children are in need of more support to take care of special needs of their special children. Thus satisfaction with whatever support available is important for both groups.

Although it was not hypothesized, independent sample *t*-test and then regression analyses, controlling for covariates, revealed differences of mothers on life satisfaction with mothers living with typical children having more life satisfaction than mothers living with children having Down syndrome. Further, findings from t-test did not depict differences on overall mood level, however, results from regression analysis showed that mothers of typical children had better overall mood. These results are in accordance with the studies which conclude that mothers of special children are particularly prone to mental health problems (e.g., Fairthorne, Jacoby, Bourke, Klerk, & Leonard., 2015; Lee, 2013). In case of having a child with special needs, the parents do not have to cope with the child's challenging behaviors only, but, they also face distressing and negative responses of others about the child's disability, that effect the parent's life satisfaction and mood level (Dalal & Pande, 1999). Moreover, parents generally have lot of expectations regarding the successful future of their children, but in case of having a child with disability, these expectations are not fulfilled which hampers their well-being (Karande, Kumbhare, Kulkarni, & Shah, 2009).

Implications

The study has implications for counsellors of mothers of children with special needs to address their particular issues regarding their children and provide the support, which has been found particularly important for their well-being in current study.

Limitations and Suggestions

Overall, results reveal self-efficacy and satisfaction with social support as personal resources and availability of support as a buffer for mothers of children having Down syndrome. However, cause and effect relationship can be concluded with the help of experimental and longitudinal studies. Future studies need to explore the differential effect of satisfaction and availability of social support in normal and difficult life situations. Although, two types of social support have been addressed in the present study, but there is still room for exploration of other types and sources of support that are particularly beneficial to enhance well-being of mothers of children with special needs.

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