INTERNATIONAL DEVELOPMENT PLANNING REVIEW
ISSN:1474-6743 | E-ISSN:1478-3401

DEPRESSION, ANXIETY, AND STRESS IN PARENTS OF CHILDREN VISITING THE PSYCHIATRIC CLINIC: A CROSS-SECTIONAL STUDY ON THE ROLE OF SOCIAL SUPPORT

Zakaria Yahya Alsanosi1, Saleha M. Ayoub2, Anwar Saleh Alahmar1, Sattam Ahmad Jaddoh1, Hamed Yahya Alnijadi1, Nawaf Ali Darbashi2, Laila Mohsen Amri2, Asma A. Alhazmi3, Amal Mohammed Ageeli2, Salman M. Jathmi2, Areen Mohsen Taheri2, Ahmed Hassan Sumayli2 and Ahmed Khalid Moafa2

1 Jazan health cluster, Eradah for mental health hospital, Jazan , KSA
2 Faculty of medicine, Jazan University, Jazan, KSA
3 College of Pharmacy, Jazan University, Jazan, KSA

Corresponding author: Saleha M. Ayoub

Abstract

Introduction

Anxiety and depression are common mental health disorders that affect millions worldwide. Anxiety is characterized by worry and fear, while depression involves persistent sadness and loss of interest. Both conditions can significantly impact daily life and relationships. Recognized by the WHO as significant contributors to the global disease burden, they affect people of all demographics and can lead to serious consequences if untreated. Globally, around 3.6% of people have anxiety disorders, and 4.4% have depression. It has been reported that parents of children with psychiatric disorders also suffer from mental health disorders, including depression and anxiety. Therefore, our study aimed to measure the prevalence of depression, anxiety and stress among parents of children who visit the psychiatric clinic in the Jazan region.

Methodology

This is a cross-sectional observational study using the Depression, Anxiety, and Stress Scale-21 and the Medical Outcome Study Social Support Survey questionnaires assessing depression, anxiety, and stress in 440 parents whose children visited psychiatric clinics in Jazan. Data was collected through interviews and analyzed using IBM (Armonk, NY) Statistical Package for Social Sciences, v. 29.0.0.

Results

Our study included 449 parents, the majority from 36-45 years old (N = 175, 39.0%), predominantly female (N = 252, 56.1%). Most participants had a bachelor's degree (N = 134, 29.8%) and lived in their own homes (N = 239, 54.3%). Depression (mean = 6.15), anxiety (mean = 7.21), and stress (mean = 5.98) were prevalent, with 52.3% experiencing severe depression, 58.6% severe anxiety, and 55.2% severe stress. Social support significantly reduced depression (r = -.292, p = .000), anxiety (r = -.229, p = .000), and stress (r = -.307, p = .000). Illiterate parents had higher depression (mean = 7.87, p = 0.019), anxiety (mean = 9.27, p = 0.035), and stress (mean = 8.80, p = 0.002) scores. Divorced/separated parents reported significantly higher mental health issues (p < 0.001). Living situations also influenced depression (p < 0.001).

Conclusion

The results of our study conclude that depression, anxiety, and stress are prevalent among parents of children visiting psychiatric clinics, with significant correlations to social support, education level, marital status, and living situation. Strengthening social support networks and addressing socioeconomic factors may help reduce mental health burdens in this population.

Introduction

Background anxiety and depression are significant public health issues, affecting many individuals and causing crucial healthcare costs. It may result in pain, diminished well-being, and difficulties interacting with others for those impacted and their families. These illnesses are still not fully comprehended or adequately addressed despite available treatments.[1] The American Psychiatric Association established an anxiety algorithm in the DSM-IV, Primary Care Version to help primary care physicians understand diagnostic categories and processes.[1] Anxiety can manifest as a variety of symptoms, such as headaches, chest pain, dizziness, chronic pain, and gastrointestinal issues. On the other hand, depression is a severe clinical disorder characterized by mood disturbances, a loss of interest in activities (anhedonia), and profound sadness. These symptoms can significantly impact social, familial, and occupational functioning, causing distress.[1] Problems with children and adolescents' psychological health (when they arise in infancy, childhood, or adolescence) should be prioritized for public health management since they impact the processes of adaptation and functionality in adulthood. Global estimates place the prevalence of mental health issues in young children between 17% and 20%, with the average onset of symptoms occurring before the age of 14. Furthermore, it has been discovered that developing nations have the highest prevalence rates.[2] Children lay the foundations for future mental health development during the first few years of life. Some children outgrow their mental health issues, according to studies, but others experience persistent issues throughout childhood and adolescence. Understanding early risk factors and experiences related to mental health is crucial in efforts to stop children from developing mental health issues.[3] For example, in some cases, such as attention deficit hyperactivity disorder (ADHD), the symptoms of ADHD and anxiety problems are associated with dysfunctional behaviors, which makes family life very difficult while raising a child.[4] A literature review study discovered that a variety of psychological and biological factors interact to influence children's ADHD and mothers' depression disorders. Children treated for ADHD can have a good influence on their mothers' depressed symptoms, as well as lessen negative parental attitudes, lower the likelihood of behavioral abnormalities in children, and improve children's treatment.[4] Autism spectrum disorder (ASD) is a neurodevelopmental illness that affects 2.3% of 8-year-old children and 2.2% of adults in the U.S. It is characterized by deficiencies in social communication and the prevalence of restricted, repetitive activities or interests.[5] Disabled children frequently depend on their families for help concerning their physical, social, and emotional requirements. In addition to the immense challenge of raising a child with neurodevelopmental disabilities (NDDs), parents also have a higher chance of developing other psychopathologies, such as depression, anxiety and stress. Research has indicated that up to 68% and 52% of these mothers suffer from anxiety and despair, respectively. Mothers are known to have higher rates of depression due to the pressure of juggling their children's requirements with household duties.[6] As intellectual and developmental disabilities (IDDs) frequently co-occur, families would benefit from increased happiness, personal development, and closeness to one another.[7] Depression is linked to harmful effects that include worsening physical health, neglecting oneself, and having trouble interacting with others.[7] Singer compiled data on depression in mothers

of children with IDD in 2006; she discovered that the prevalence of depression in these women was estimated to be 29%, while it was only 19% in mothers of children who were typically developing.[7] A study screened 5,839 records, focusing on 19 studies in high-income or upper-middle-income countries. Sixty-nine percent of the studies found a positive association between parenting a child with IDD and depression and anxiety symptoms. Factors associated with higher depression symptoms included disability severity and lower household income. About 31% of parents of children with IDD reach the clinical cut-off score for moderate depression and anxiety.[7] Many studies conducted in the Gulf countries have found an increase in psychological problems and stress among caregivers of children with ASD.[8] In Oman, one study suggested that 71% of caregivers of children with ASD experienced a prevalence of depressive symptoms.[8] Moreover, a recent Saudi Arabian study demonstrated that the parents of children with NDDs showed that a significant 85.8% experienced symptoms of anxiety, while 85.1% experienced depression.[9] This study aimed to fill a crucial gap in evidence related to parental mental health by measuring how the role of social support affects the level of depression, anxiety, and stress among parents of children who visited Jazan region psychiatric clinics. Recognizing and addressing paternal mental health is also integral to improving the overall well-being of both parents and their children.

Study Rationale

This investigation provides evidence concerning the prevalence of depression, anxiety, and stress among parents of children who visited psychiatric clinics in the Jazan region. Recognizing and addressing parental mental health is integral to positively influencing the overall well-being of parents and their children. It will also determine the level of social support received because it is important to know its effect on this mental illness's prevalence. Assessment of this mental illness plays a major role and is the first step towards treatment to improve the overall health of parents, which has a positive impact on their children.

Objectives

General Objective

- To assess the prevalence of depression, anxiety, and stress in parents of children who visited psychiatric clinics in the Jazan region and to discover the role of social support in mitigating these illnesses.

Specific Objectives

- To measure the level of depression among parents of children who visited psychiatric clinics in the Jazan region.
- To measure the prevalence of anxiety among parents of children who visited psychiatric clinics in the Jazan region.
- To measure the prevalence of stress among parents of children who visited psychiatric clinics in the Jazan region's Ministry of Higher Education Faculty of Medicine.
- To determine children's most common psychiatric disorders that increase the risk of depression, anxiety, or stress among parents.
- To determine the role of social support in developing depression, anxiety, or stress among parents.

Research Question

What is the prevalence of depression, anxiety, and stress in parents of children who visit psychiatric clinics in the Jazan region, and what is the role of social support?

Hypothesis

There is no association between the prevalence of depression, anxiety, and stress among parents of children who visited psychiatric clinics in the Jazan region and the role of social support.

Literature Review

A cross-sectional study in Maharashtra, including 99 parents, demonstrated that a significant percentage of parents of children with intellectual disabilities seem to suffer from anxiety, depression, or both.[10] According to study results, over 50% of mothers who brought their children to the psychiatric clinic were also dealing with psychological issues.[11] A recent study was conducted for parents of children with ASD; 683 participants were included. The study demonstrated that mothers showed considerably greater levels of stress, anxiety, and depression than fathers. Mothers had a 13.8% and 13.1% prevalence of moderate to severe anxiety and depression, respectively. In contrast, fathers had a prevalence of 9.9% and 8.0%, respectively.[12] A 1992 Australian study included 172 parents of children with autism; the study showed a significantly higher level of depression, anxiety and stress among mothers than fathers. It also made an interesting point in that social support plays a significant role as a predictor of both depression and anxiety; those who do not receive social support have a higher prevalence.[13] A study evaluating psychopathology in parents of depressed children and adolescents revealed a substantial difference between fathers and mothers in terms of psychopathology and its onset. Mothers were found to be significantly more likely than fathers to have histories of major depression (56.3% vs. 34%), suicide (23% vs. 4.3%), and anxiety disorder (21.85% vs. 6.5%). The study also revealed that mothers reported experiencing depression at a younger age than fathers, with a mean age of onset of 24.9 years for mothers and 29.2 years for fathers. Mothers also started therapy earlier than fathers, with a mean age of 26.8 vs. 30.9 years.[14] A 2019 study that included 167 parents of children with developmental disabilities and 103 parents of children without developmental disabilities suggested that mothers of children with developmental disabilities have a higher risk of future anxiety than fathers of children with developmental disabilities and parents of children without developmental disabilities.[15] A study conducted at India's Faculty of Medicine among 60 parents of children with intellectual disabilities who attended a psychiatric clinic resulted in a 55% prevalence of psychiatric morbidity.[16] Research in 2018 that included 31 children found that children of parents with less severe depression showed steep symptom declines, but children of parents with more severe depression showed flat trajectories.[17] A cross-sectional Turkish study that included 127 parents of disabled children demonstrated that financial support is the most critical factor that affects parents' psychological well-being.[18] Another cross-sectional study carried out in 2016 of 102 parents of children with autism showed that depression was prevalent among 26.7% and anxiety prevalent in 33.7% of parents.[19] A 2007 Barcelona study among 63 parents of children and adolescents with ADHD and 63 parents of the same age and gender of children with no psychiatric diagnosis showed that there was an excess of psychopathology in parents of children with ADHD.[20] Taiwanese research was conducted on boys with ADHD and their mothers. It was aimed at investigating how the mother's depression and the child's ADHD affect the parent–child relationship; it included 39 dyads with boys between the ages of 8 and 12 years old, divided into three study groups. The first included 10 boys with ADHD and their depressed mothers, the second 13 boys with ADHD and their depressed mothers, and the remainder (16) comprised boys and mothers without ADHD and depression. In contrast to the other two groups in this study, mothers who were depressed seemed to exhibit a flat negative engagement affect in contrast contexts; however, the statistical analysis did not reach a significant level. According to earlier research, depressed women were more irritated and judgmental of their

children or their preadolescents who misbehaved.[21-22] We are unaware of any studies that have been conducted on the extent of the prevalence of depression, anxiety, and stress among parents of children who visited psychiatric clinics in the Jazan region and the role of social support in its mitigation. Therefore, this study was the first in the region to fill this literature gap.

Materials and Methods

Study design:

A cross-sectional observational descriptive study design was used.

Study setting

The study was conducted in the child psychiatric clinics at Eradah Hospital for Mental Health, Jazan region, in the southwest of Saudi Arabia.

Study population

The targeted population is the parents of children who visited child psychiatric clinics at Eradah Hospital for Mental Health during the study's duration.

Inclusion criteria: Parents of children who visited child psychiatric clinics at Eradah Hospital during the study, showed willingness to participate, and spoke Arabic.

Exclusion criteria: Non-Jazan resident parents of children who visited child psychiatric clinics at Eradah Hospital who refused to participate and who did not speak Arabic.

Sample size

Any individual who satisfied the inclusion criteria was accepted into the study. The confidence interval was 95%, the margin of error not exceeding 5%, and a 20% non-response rate yielded a sample size of 440 based on the following formula: N = Nz(") $ P(1 − P) (N − 1)d$ + P(1 − P)z(") $ 3.4.1. A non-probability convenience sampling technique will be used in this study.

Data collection method and tools

After respondents had read and accepted the informed consent form, the data was collected by interview using an adapted questionnaire. The questionnaire consisted of three parts: first, research participants' general characteristics; second, the Depression, Anxiety, and Stress Scale (DASS-21) for the assessment of the level of depression, anxiety, and stress; and last, the Medical Outcome Study Social Support Survey (MOS-SSS) questionnaire. The data was collected from the study population through interviews and the completion of a validated Arabic questionnaire. 3.5.1. The DASS-21 is a 21-item self-report questionnaire; its essential function is to assess the severity of depression, anxiety and stress's core symptoms and comprises three domains: depression, anxiety, and stress. Each domain has seven items. The individual must indicate the presence of a symptom over the previous week; each item is scored from 0 (did not apply to me) to 3 (applied to me very much or most of the time). We used the Arabic version developed by Taouk et al. in Australia.[23] 3.5.2. The MOS-SSS is a self-administered questionnaire with a 5-point answer scale. This survey was designed to be comprehensive regarding recent thinking about the various dimensions of social support. It was also intended to be distinct from other related measures. Empirical analyses indicated that the emotional and informational support items should be scored together, so four functional sub-scales were derived: first, tangible support (items 2, 5, 12, 15); second, affectionate (items 6, 10, 20); third, positive social interaction (items 7, 11, 14, 18), and fourth, emotional or informational support (items 3, 4, 8, 9, 13, 16, 17, and 19). These support measures are distinct from structural measures of social support and related health measures. They are reliable (all alphas > 0.91) and are relatively stable over time.[24]

Data entry and statistical analysis

Data entry and analysis were performed using IBM (Armonk, NY) Statistical Package for Social Science (SPSS) v. 29.0.0. Analysis involved descriptive and inferential statistics according to the

required purpose of each relationship. Frequency distributions were obtained, and descriptive statistics were calculated. If necessary, the chi-square test, analysis of variance (ANOVA), and logistic regression were used to determine possible associations between variables.

Ethical considerations

The study was conducted according to Saudi Arabian ethics and its guidelines. This study will also be sent to the Jazan University Research Ethics Committee for approval and assessment. We required full consent from every participant after the study was explained to them. If they agreed, they would take an anonymous self-administration questionnaire, our data collection tool. The participants had the right to withdraw at any time; there would be no harm or loss of benefits if they continued or withdrew from participating, and we ensured that the participant's personal information was preserved and that confidentiality was maintained.

Utilization

According to the reviewed literature, there is an association between depression, anxiety, and stress disorders and social support among parents of children who visited psychiatric clinics. Therefore, our study aimed to identify the role of social support in the prevalence of depression, anxiety, and stress among parents of children who visited psychiatric clinics in the Jazan region. We hope that by addressing the prevalence of mental illness, we will be able to spread awareness in the Jazan community and provide the necessary psychological and social support programs for patients' parents.

Statistical Analysis

A comprehensive statistical analysis was conducted on the dataset, encompassing both descriptive and inferential methodologies. A descriptive analysis was performed to summarize the participants' demographic characteristics, including age, gender, and other features. An independent Student's t-test and ANOVA were used to see the association and score the difference between continuous variables. Subsequently, Pearson's bivariate correlation model was used to find the correlation between social support and the parent's mental condition. All statistical analyses were executed using IBM's SPSS software, v. 29.0.0.

Results

Our study included 449 parents of children who visited psychiatric clinics. Most participants were 36-45 years old (N = 175, 39.0%), followed by 26-35 years old (N = 124, 27.6%). Females comprised 56.1% (N = 252) of the sample, and males 43.9% (N = 197). Most participants had a bachelor's degree (N = 134, 29.8%), followed by high school graduates (N = 123, 27.4%). Regarding living situations, 54.3% (N = 239) lived in their own homes, while 38.2% (N = 168) rented. Most were married (N = 409, 91.1%), and 50.6% (N = 227) were employed. In terms of income, 53.2% (N = 239) earned between 5000-15 000 SAR, while 29.2% (N = 131) earned less than 5000 SAR per month (Table 1).

Table 1: *Sociodemographic and other parameters of parents of children who visited psychiatric clinic (N = 449)*

		Frequency N (%)
Age	< 25 Years	51 (11.4%)
	26-35 Years	124 (27.6%)
	36-45 Years	175 (39.0%)
	> 45 Years	99 (22.0%)
Gender	Female	252 (56.1%)
	Male	197 (43.9%)

Education Level	Illiterate	30 (6.7%)
	Primary to Middle School	79 (17.6%)
	High School	123 (27.4%)
	Bachelor's	134 (29.8%)
	Master's/Diploma	83 (18.5%)
Living Situation	Rent House	168 (38.2%)
	Own House	239 (54.3%)
	Other	33 (7.5%)
Living Situation	Divorced/Separated	40 (8.9%)
	Married	409 (91.1%)
Job Status	Unemployed	222 (49.4%)
	Employee	227 (50.6%)
Income Level	< 5000 SAR	131 (29.2%)
	5000-15 000 SAR	239 (53.2%)
	15 000-25 000 SAR	66 (14.7%)
	> 25 000 SAR	13 (2.9%)

Table 2 shows the assessment of depression, anxiety, and stress among parents of children who visited psychiatric clinics and was based on the DASS-21 score. The mean depression score was 6.15 (SD = 4.28), with a median of 6 and an interquartile range (IQR) of 3 to 9, with scores ranging from 0 to 21. Anxiety had a mean score of 7.21 (SD = 4.68), a median of 7, and an IQR of 3 to 10, with a range of 0 to 21. Stress levels showed a mean score of 5.98 (SD = 4.44), with a median of 6, an IQR of 2 to 9, and a range of 0 to 21. The overall DASS-21 scale score had a mean of 19.34 (SD = 12.32), a median of 20, and an IQR of 9 to 28, with a total range from 0 to 63.

Table 2: *Assessment of depression, anxiety and stress among parents of children who visited psychiatric clinic based on DASS-21 score (N = 449)*

	Mean (SD)	Median	IQR	Range (Min-Max)
Depression	6.15 (4.28)	6	3 - 9	0 - 21
Anxiety	7.21 (4.68)	7	3 - 10	0 - 21
Stress	5.98 (4.44)	6	2 - 9	0 - 21
Overall DASS-21 Score	19.34 (12.32)	20	9 - 28	0 - 63

Figure 1 shows the level of depression, anxiety, and stress among parents of children who visited a psychiatric clinic (N = 449). The depression levels show that 22.5% of parents experienced no or minimal symptoms, 25.2% had moderate symptoms, and 52.3% had severe symptoms. For anxiety, 21.2% of parents experienced no or minimal symptoms, 20.3% had moderate symptoms, and 58.6% had severe symptoms. Regarding stress, 27.2% of parents had no or minimal symptoms, 17.6% had moderate symptoms, and 55.2% had severe symptoms.

Figure 1: *Level of depression, anxiety and stress among parents of children who visited psychiatric clinic (N = 449)*

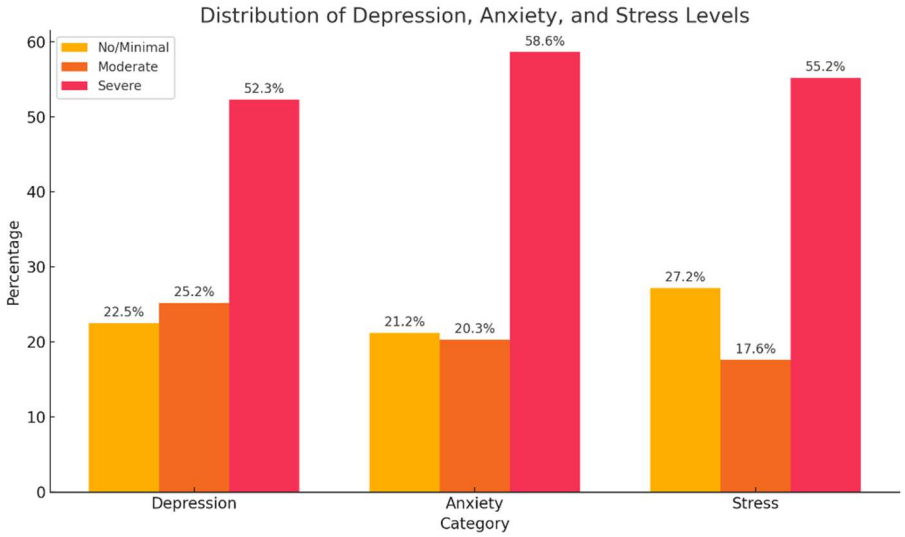

Table 3 shows the assessment of social support among parents of children visiting psychiatric clinics; it was evaluated using the MOS-SSS. The mean tangible support score was 13.62 (SD = 4.35), with a median of 13 and an IQR of 10 to 17, with scores ranging from 4 to 20. Affectionate support had a mean score of 10.29 (SD = 3.37), a median of 10, and an IQR of 8 to 13, with a range of 3 to 15. Positive social interaction support showed a mean of 13.27 (SD = 4.26), a median of 12, and an IQR of 10 to 16, with a range of 4 to 20. Emotional support had a mean of 25.13 (SD = 7.93), a median of 23, and an IQR of 20 to 30, with scores ranging from 8 to 40. The overall social support score had a mean of 62.30 (SD = 17.43), a median of 57, and an IQR of 50 to 75, with a total range of 19 to 95.

Table 3: *Assessment of social support of parents of children who visit psychiatric clinic based on MOS-SSS (N = 449)*

	Mean (SD)	Median	IQR	Range
Tangible Support	13.62 (4.35)	13	10 - 17	4 - 20
Affectionate Support	10.29 (3.37)	10	8 - 13	3 - 15
Positive Social Interaction Support	13.27 (4.26)	12	10 - 16	4 - 20
Emotional Support	25.13 (7.93)	23	20 - 30	8 - 40
Overall Support	62.30 (17.43)	57	50 - 75	19 - 95

Table 4 and Figure 2 show the correlation between different types of social support and mental health outcomes. Tangible support was negatively correlated with depression (r = -.256, *p* = .000), anxiety (r = -.198, *p* = .000), and stress (r = -.279, *p* = .000), suggesting that practical assistance significantly alleviates mental health burdens. Affectionate support had a stronger negative correlation with depression (r = -.278, *p* =.000), anxiety (r = -.249, *p* = .000), and stress (r = -.320, *p* = .000), indicating that emotional care and love play a crucial role in reducing psychological distress. Positive social interaction support also showed a notable negative correlation with depression (r = -.269, *p* = .000), anxiety (r = -.232, p =.000), and stress (r = -.305, *p* = .000), emphasizing the importance of social engagement in improving mental well-being. Emotional support exhibited a moderate negative correlation with depression (r = -.240, *p* = .000), anxiety (r = -.164, *p* = .000), and stress (r = -.224, *p* = .000), reinforcing the role of empathy and emotional understanding in mental health. Finally, the overall support score demonstrated the strongest negative correlation with depression (r = -.292, *p* = .000), anxiety (r = -.229, *p* = .000), and stress

(r = -.307, p = .000), highlighting the comprehensive benefit of strong social support in reducing mental health issues among parents of children who visited psychiatric clinics.

Table 4: *Correlation between different types of support and depression, anxiety and stress among parents with children who visited psychiatric clinics (N = 449)*

		Depression	Anxiety	Stress
Tangible Support	Correlation (r)	-.256	-.198	-.279
	Sig. Value	***.000***	***.000***	***.000***
Affectionate Support	Correlation (r)	-.278	-.249	-.320
	Sig. Value	***.000***	***.000***	***.000***
Positive Social Interaction Support	Correlation (r)	-.269	-.232	-.305
	Sig. Value	***.000***	***.000***	***.000***
Emotional Support	Correlation (r)	-.240	-.164	-.224
	Sig. Value	***.000***	***.000***	***.000***
Overall Support	Correlation (r)	-.292	-.229	-.307
	Sig. Value	***.000***	***.000***	***.000***

Figure 2: *Scatterplot showing the correlation between different types of support and depression, anxiety and stress among parents with children who visited psychiatric clinics*

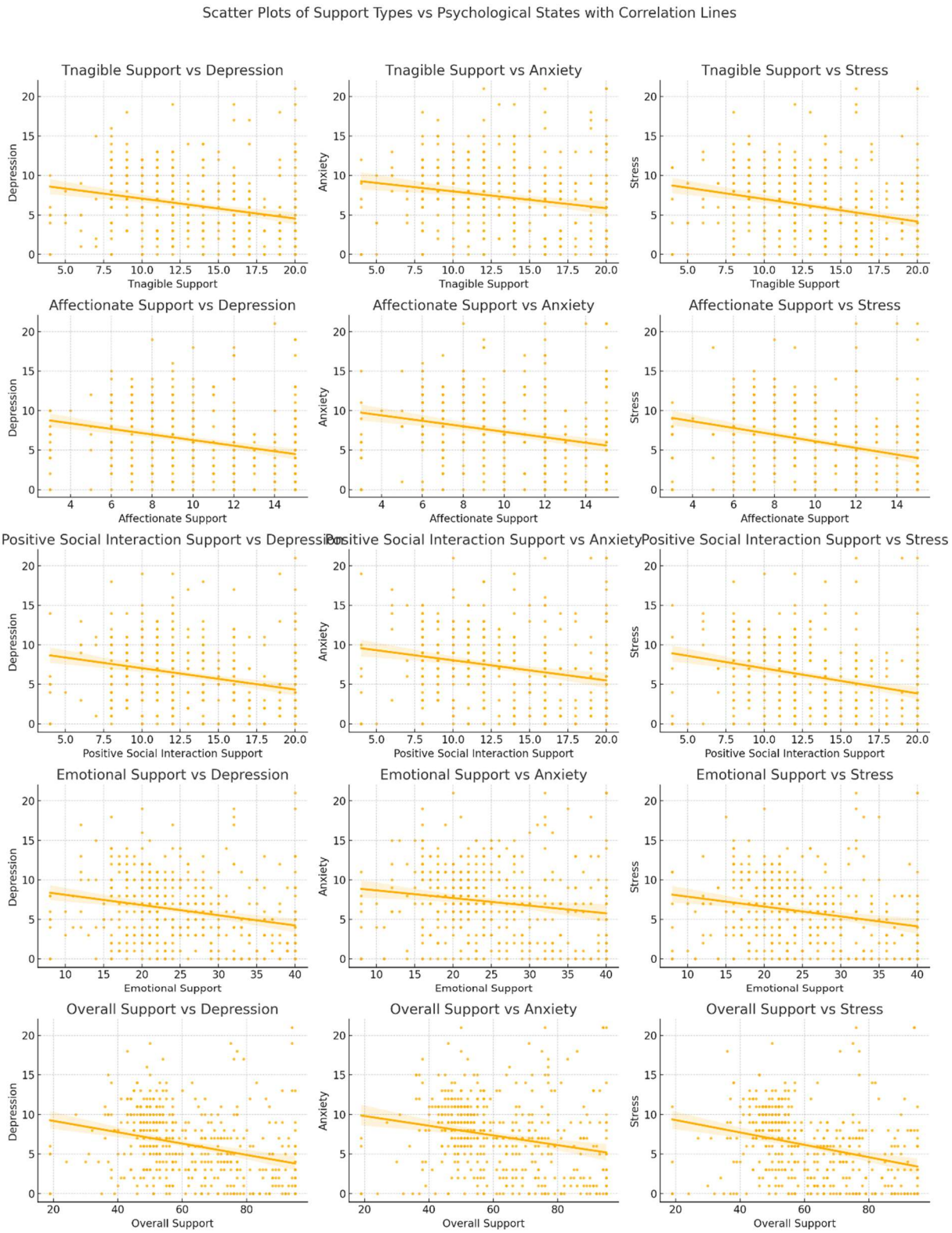

Table 5 shows the association between sociodemographic factors and the levels of depression, anxiety, and stress in parents of children who visited psychiatric clinics. Age did not show a significant association with depression ($p = 0.643$), anxiety ($p = 0.887$), or stress ($p = 0.533$). Similarly, gender was not significantly associated with any of the mental health conditions, as females and males showed similar mean scores for depression ($p = 0.605$), anxiety ($p = 0.518$), and stress ($p = 0.856$). However, education level was significantly associated with all three outcomes. Illiterate parents had higher mean depression (7.87, $p = 0.019$), anxiety (9.27, $p = 0.035$), and stress (8.80, $p = 0.002$) scores compared to parents with higher education levels, where bachelor's degree holders reported the lowest scores. Living situations also had a significant association with depression ($p < 0.001$), where parents living in rented houses had higher mean depression scores (6.96) compared to those living in their own homes (5.39). Marital status was strongly associated with depression ($p < 0.001$), anxiety ($p = 0.024$), and stress ($p = 0.045$), with divorced/separated parents showing significantly higher scores across all mental health conditions. Employment status and income level did not show significant associations with depression, anxiety, or stress.

Table 5: - *Association between different sociodemographic features with depression, anxiety and stress in parents (N = 449)*

		Depression Mean (SD)	Sig. Value	Anxiety Mean (SD)	Sig. Value	Stress Mean (SD)	Sig. Value
Age	< 25 Years	6.69 (4.19)	0.643[a]	7.12 (4.64)	0.887[a]	6.69 (3.98)	0.533[a]
	26-35 Years	5.85 (3.88)		6.94 (4.54)		5.60 (4.30)	
	36-45 Years	6.29 (4.63)		7.34 (4.79)		6.01 (4.66)	
	> 45 Years	6.03 (4.18)		7.34 (4.70)		6.04 (4.45)	
Gender	Female	6.25 (4.20)	0.605[b]	7.33 (4.79)	0.518[b]	5.95 (4.34)	0.856[b]
	Male	6.04 (4.38)		7.05 (4.52)		6.03 (4.58)	
Education level	Illiterate	7.87 (4.78)	***0.019***[a]	9.27 (5.37)	***0.035***[a]	8.80 (4.41)	***0.002***[a]
	Primary to Middle School	6.10 (4.68)		7.16 (5.07)		5.92 (4.55)	
	High School	6.20 (4.39)		7.62 (4.75)		6.24 (4.60)	
	Bachelor's	5.34 (3.69)		6.46 (4.23)		5.20 (3.93)	
	Master's/Diploma	6.82 (4.21)		7.11 (4.41)		5.90 (4.56)	
Living Situation	Rent House	6.96 (4.19)	***<0.001***[a]	7.64 (4.57)	0.168[a]	6.57 (4.30)	0.054[a]
	Own House	5.39 (4.06)		6.80 (4.72)		5.49 (4.52)	
	Other	6.52 (4.85)		7.67 (4.59)		6.12 (4.19)	

Marital Status	Divorced/Separated	8.48 (4.77)	***<0.001*** [b]	8.80 (4.88)	***0.024*** [b]	7.33 (4.75)	***0.045*** [b]
	Married	5.93 (4.17)		7.05 (4.63)		5.85 (4.39)	
Marital Status	Unemployed	6.33 (4.34)	0.379 [b]	7.51 (4.94)	0.176 [b]	6.15 (4.40)	0.433 [b]
	Employee	5.98 (4.22)		6.91 (4.39)		5.82 (4.48)	
Income Level	< 5000 SAR	6.35 (4.67)	0.927 [a]	7.85 (5.32)	0.164 [a]	6.68 (4.68)	0.068 [a]
	5000-15 000 SAR	6.06 (4.27)		6.86 (4.44)		5.49 (4.38)	
	15 000-25 000 SAR	6.17 (3.52)		7.47 (4.08)		6.47 (3.88)	
	> 25 000 SAR	5.85 (4.16)		5.85 (4.36)		5.46 (5.13)	

(a) ANOVA, (b) Independent t-test

Discussion

Anxiety and depression are significant public health concerns, impacting individuals and families, particularly parents of children with NDDs such as ADHD and autism.[25] Parents, especially mothers, experience high levels of stress, anxiety, and depression, with research showing 52% to 68% of mothers with NDD children are affected.[25] Previous medical literature highlights the correlation between parenting children with NDDs and increased mental health issues, especially in low-income families. Similarly, previous studies show that parents of children with intellectual disabilities show higher levels of parenting stress than parents of typically developing children.[26-27] This study aimed to address the gap by measuring depression, anxiety, and stress levels among Jazan parents and exploring social support's role.

Notably, according to our study, parents have alarmingly high levels of mental health issues, with more than half of participants experiencing depression (52.3%), anxiety (58.6%), and stress (55.2%). These findings highlight the presence of severe symptoms among parents of children with psychosis, showing emotional damage. Similar studies have reported comparable findings, indicating that the emotional burden experienced by these parents is often overwhelming. A previous study found that parents of children with mental illness exhibited significantly higher levels of psychological distress compared to the general population.[28] Moreover, Azeem et al. (2013) showed that among mothers, 35% met the criteria for anxiety, 40% for depression and 13% for both anxiety and depression. Among fathers, 42% had anxiety, 31% had depression, and 3% had both anxiety and depression.[29] Moreover, the stress of managing the child's condition, more frequent visits to a mental health clinic, and the child's future anxiety, which is likely to contribute to this, increases parents' stress. Similarly, Cheng et al. (2023) showed that financial and human resource constraints may be some of the major risk factors for parental stress, as parents from lower socioeconomic levels need extra support for expenses and manpower to care for their children with mental conditions.[30]

Moreover, our findings on stress levels align with those of a 2022 study by Alibekova et al., which revealed that parents of children with autism or ADHD experienced higher levels of stress and anxiety compared to other parents.[31] In our study and Alibekova's research, managing the child's daily care, medical appointments, and behavior created a chronic state of stress, affecting parents'

overall well-being. The strong prevalence of severe anxiety symptoms in our cohort, at 58.6%, is markedly higher than in general population studies, which typically report anxiety levels ranging from 15% to 30%. This stark contrast underscores this population's heightened vulnerability to mental health challenges. However, Devi et al. (2019) showed that nearly 47.33% of the parents reported mild-to-moderate stress, whereas 25% reported high stress.[32]

Our study identified a significant negative correlation between social support and mental health outcomes. Specifically, all forms of social support—including tangible support, affectionate support, positive social interaction, and emotional support—were associated with reduced levels of depression, anxiety, and stress. This finding aligns with previous research emphasizing the protective role of social support in mental health. Ozbay's (2007) study found that emotional and instrumental support can buffer the adverse effects of stress and mitigate the onset of depression and anxiety.[33] However, Kim et al.'s (2024) study found that social support did not significantly buffer mental health conditions such as stress, possibly due to pre-existing mental health conditions and strained relationships.[34]

Our findings on tangible support align with earlier research, where practical assistance alleviated stress related to caregiving responsibilities. Parents who receive help with daily tasks such as childcare, household chores, or medical appointments experience a reduced burden, lowering their stress levels. Similarly, Acoba et al. (2024) stated that tangible support from family and significant other support decreased perceived stress, increasing positive affect and decreasing anxiety and depression.[35] Affectionate support, encompassing emotional care and love, had an even stronger negative correlation with depression ($r = -.278$) and stress ($r = -.320$), reflecting the importance of close relationships and emotional care in mitigating psychological distress. These results mirror findings from a study by Alsaad et al. (2023), which demonstrated that affectionate social support significantly reduced the likelihood of depression and anxiety among parents of children with chronic illnesses.[36]

Furthermore, the significant association between positive social interactions and mental health outcomes suggests that social participation is important in improving psychological well-being. Social interaction can promote emotional well-being and a sense of belonging, helping parents cope with the challenges of caring for a child with mental health needs. Research by Cutrona and Russell (1987) showed that social interaction is associated with a decreased risk of mental health decline and individualization of psychological resources. From this perspective, positive associations are strongly associated with lower levels of depression, anxiety, and stress.[37]

Our study also found that certain sociodemographic factors, including education level, living situation, and marital status, significantly influenced mental health outcomes. Illiterate parents reported higher levels of depression, anxiety, and stress, aligning with previous research that links lower education to greater psychological distress.[38] Renting homes was associated with increased depression, likely due to financial instability, while homeownership provided a sense of security.[39] Marital status also played a crucial role, with divorced or separated parents experiencing higher levels of mental health issues compared to married parents, who benefit from shared caregiving and emotional support.[40] These findings mirror established research on the mental health impacts of socioeconomic factors.

Limitations

While our study provides valuable insights, it is not without limitations. Its cross-sectional design limits our ability to establish causality between social support and mental health outcomes. Additionally, relying on self-reported measures may introduce bias, as participants may

underreport or overreport their symptoms. Future research should explore longitudinal designs to better understand the long-term effects of social support on mental health in this population.

Implications and Recommendations

Our study highlights the need for targeted mental health interventions for parents of children who visit psychiatric clinics, given the observed high levels of depression, anxiety, and stress. Accessing counseling, support groups, and stress management resources can help alleviate emotional burdens. Strengthening social support networks within families and communities is also crucial for improving mental health outcomes. Healthcare providers should incorporate mental health screenings into routine care for both children and parents, and interventions that connect parents with local support groups and resources could help reduce psychological strain.

Conclusion

Our study highlights the significant mental health challenges faced by parents of children who visit psychiatric clinics; high levels of depression, anxiety, and stress were reported. Social support plays a crucial role in alleviating these mental health burdens, emphasizing the importance of fostering strong support networks. Sociodemographic factors such as education, living situation, and marital status also influence mental health outcomes, underscoring the need for tailored interventions. Healthcare providers can help improve the well-being of both the parents and their children by addressing the mental health and social support needs of these parents.

References

1. Ballenger JC. Anxiety and depression: optimizing treatments. *Prim Care Companion J Clin Psychiatry*. 2000 Jun;2(3):71-79. doi: 10.4088/pcc.v02n0301. PMID: 15014652; PMCID: PMC181112.
2. Caqueo-Urízar A, Flores J, Escobar C, et al. Psychiatric disorders in children and adolescents in a middle-income Latin American country. *BMC Psychiatry*. 2020;20:104. doi: https://doi.org/10.1186/s12888-020-02512-4.
3. Wilhelmsen T, Røysamb E, Lekhal R, Brandlistuen RE, Alexandersen N, Wang MV. Children's mental health: The role of multiple risks and child care quality. *J Appl Dev Psychol*. 2023;86:101546. doi: https://doi.org/10.1016/j.appdev.2023.101546.
4. Dadashi M, Bateni R, Ghoreishi A. Personality disorders, depression, and anxiety in mothers of children with ADHD and anxiety disorders in Iran. *J Mother Child*. 2022 Nov 2;26(1):50-57. doi: 10.34763/jmotherandchild.20222601.d-22-00016. PMID: 36317794; PMCID: PMC10032326.
5. Hirota T, King BH. Autism spectrum disorder: a review. *JAMA*. 2023 Jan 10;329(2):157-168. doi: 10.1001/jama.2022.23661. PMID: 36625807.
6. Fatima N, Chinnakali P, Rajaa S, Menon V, Mondal N, Chandrasekaran V. Prevalence of depression and anxiety among mothers of children with neuro-developmental disorders at a tertiary care center, Puducherry. *Clin Epidemiol Glob Health*. 2021;11:100792. doi: https://doi.org/10.1016/j.cegh.2021.100792.
7. Scherer N, Verhey I, Kuper H. Depression and anxiety in parents of children with intellectual and developmental disabilities: a systematic review and meta-analysis. PLoS One. 2019;14(7) doi: 10.1371/journal.pone.0219888. PMID: 31361768; PMCID: PMC6667144.
8. Alshekaili M, Al-Balushi N, Al-Alawi M, et al. Risk factors underlying depressive symptoms among parents/primary care providers of kids with autism spectrum disorder: a

study from Muscat, Oman. *Perspect Psychiatr Care*. 2019;55(4):600-606. doi: https://doi.org/10.1111/ppc.12374.
9. Alsaad AJ, Khamees MMA, Alkadi AN, et al. Factors associated with the prevalence of depression and anxiety among parents of children with neurodevelopmental disorders in Saudi Arabia. *BMC Public Health*. 2023;23:17228. doi: https://doi.org/10.1186/s12889-023-17228-9.
10. Sharma R, Singh H, Murti M, Chatterjee K, Rakkar JS. Depression and anxiety in parents of children and adolescents with intellectual disability. *Ind Psychiatry J*. 2021;30(2):291-298. doi: https://doi.org/10.4103/ipj.ipj_216_20.
11. Swartz HA, Shear MK, Wren FJ, et al. Depression and anxiety among mothers who bring their children to a pediatric mental health clinic. *Psychiatric Services*. 2005;56(9):1077-1083.
12. Li F, Tang Y, Li F, et al. Psychological distress in parents of children with autism spectrum disorder: A cross-sectional study based on 683 mother-father dyads. *J Pediatr Nurs*. 2022;65e55. doi: https://doi.org/10.1016/j.pedn.2022.02.006.
13. Gray DE, Holden WJ. Psycho-social well-being among the parents of children with autism. *Australia and New Zealand Journal of Developmental Disabilities*. 1992;18(2):83-93. doi: https://doi.org/10.1080/07263869200034841.
14. Mitchell J, McCauley E, Burke P, Calderon R, Schloredt K. Psychopathology in parents of depressed children and adolescents. *J Am Acad Child Adolesc Psychiatry*. 1989;28(3):352-357.
15. Bujnowska AM, Rodríguez C, García T, Areces D, Marsh NV. Parenting and future anxiety: the impact of having a child with developmental disabilities. *Int J Environ Res Public Health*. 2019;16(4):668. doi: 10.3390/ijerph16040668. PMID: 30823540; PMCID: PMC6406654.
16. Tak NK, Mahawer BK, Sushil CS, Sanadhya R. Prevalence of psychiatric morbidity among parents of children with intellectual disability. *Indian J Psychiatry.* 2018 Jul-Dec;27(2):197-200. doi: 10.4103/ipj.ipj_39_18. PMID: 31359971; PMCID: PMC6592210.
17. Eckshtain D, Marchette LK, Schleider J, Weisz JR. Parental depressive symptoms as a predictor of outcome in the treatment of child depression. *J Abnorm Child Psychol*. 2018 May;46(4):825-837. doi: 10.1007/s10802-017-0323-4. PMID: 28643207; PMCID: PMC5742091.
18. Uskun E, Gundogar D. The levels of stress, depression, and anxiety of parents of disabled children in Turkey. *Disabil Rehabil*. 2010;32(23):1917-1927. doi: 10.3109/09638281003763804.
19. Machado SB Jr, Celestino MI, Serra JP, Caron J, Pondé MP. Risk and protective factors for symptoms of anxiety and depression in parents of children with autism spectrum disorder. *Dev Neurorehabil*. 2016 Jun;19(3):146-153. doi: 10.3109/17518423.2014.925519. PMID: 24950424.
20. Calvo R, Lázaro L, Castro J, Morer A, Toro J. Parental psychopathology in child and adolescent obsessive-compulsive disorder. *Soc Psychiatry Psychiatr Epidemiol*. 2007;42(8):647-655. doi: 10.1007/s00127-007-0202-3. PMID: 17516014.
21. Lee PC, Lin KC, Robson D, et al. Parent-child interaction of mothers with depression and their children with ADHD. *Res Dev Disabil*. 2013;34(1):656-668.

22. Lovejoy MC, Graczyk PA, O'Hare E, Neuman G. Maternal depression and parenting behavior: a meta-analytic review. *Clin Psychol Rev*. 2000;20(5):561-592.
23. Taouk M, Laube R. *Psychometric properties of an Arabic version of the Depression Anxiety Stress Scales (DASS)*. School of Psychology, University of New South Wales, Sydney, Australia. 2015. Available from: http://www2.psy.unsw.edu.au/dass/Arabic/Arabic.htm.
24. Stewart CDSaAL. THE MOS SOCIAL SUPPORT SURVEY. *Social Science & Medicine*. 1991;32(6):705-714.
25. Alsaad AJ, et al. Factors associated with the prevalence of depression and anxiety among parents of children with neurodevelopmental disorders in Saudi Arabia. *BMC Public Health*, 2023. 23(1): p. 2320.
26. Heslon K, Hanson JH, Ogourtsova, T. Mental health in children with disabilities and their families: red flags, services' impact, facilitators, barriers, and proposed solutions. *Front Rehabil Sci*, 2024. 5: p. 1347412.
27. Fucà E, et al. Parenting Stress in Mothers of Children and Adolescents with Down Syndrome. *J Clin Med*, 2022. 11(5).
28. National Research, C., et al., Depression in parents, parenting, and children: Opportunities to improve identification, treatment, and prevention. 2009.
29. Azeem, MW, et al., Anxiety and depression among parents of children with intellectual disability in Pakistan. *J Can Acad Child Adolesc Psychiatry*, 2013. 22(4): p. 290-5.
30. Cheng, AWY, Lai CYY. Parental stress in families of children with special educational needs: a systematic review. *Front Psychiatry*, 2023. 14.
31. Alibekova R, et al. Stress, anxiety and depression in parents of children with autism spectrum disorders in Kazakhstan: prevalence and associated factors. *Glob Ment Health (Camb)*, 2022. 9: p. 472-482.
32. Devi L, D'Mello M, Rent P. Stress and burden among parents of students in special schools of Mangaluru: a cross-sectional study. Muller Journal of Medical Sciences and Research, 2019. 10: p. 66.
33. Ozbay F, et al. Social support and resilience to stress: from neurobiology to clinical practice. *Psychiatry* (Edgmont), 2007. 4(5): p. 35-40.
34. Kim AW, Swana S, Sarma MS. Evaluating the buffering role of perceived social support and coping resources against the adult mental health impacts of COVID-19 psychosocial stress: a cross-sectional study in South Africa. *Advers Resil Sci*, 2024.
35. Acoba EF. Social support and mental health: the mediating role of perceived stress. *Front Psychol*, 2024. 15: p. 1330720.
36. Alsaad AJ et al. Factors associated with the prevalence of depression and anxiety among parents of children with neurodevelopmental disorders in Saudi Arabia. *BMC Public Health*, 2023. 23(1): p. 2320.
37. Cutrona C, Russell D. *The Provisions of Social Relationships and Adaptation to Stress*. 1983. p. 37-67.
38. Molarius A, Granström F. Educational differences in psychological distress? Results from a population-based sample of men and women in Sweden in 2012. *BMJ Open*, 2018. 8(4): p. e021007.
39. Park K, Seo W. Effects of residential instability of renters on their perceived health status: findings from the Korean welfare panel study. *Int J Environ Res Public Health*, 2020. 17(19).

40. Thomas PA, Liu H, Umberson D. Family relationships and well-being. *Innov Aging*, 2017. 1(3): p. igx025.