

PERCEIVED SOCIAL SUPPORT MEDIATES BETWEEN COGNITIVE FUNCTIONING AND POSITIVE MENTAL HEALTH IN MIDDLE AGE ADULTS

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ABSTRACT

OBJECTIVE

To evaluate the mediating role of social support in relationship between cognitive functioning and positive mental health among middle aged adults.

STUDY DESIGN

Correlational Design

PLACE AND DURATION OF THE STUDY

Data were collected from February, 2018 to May, 2018 from different universities.

SUBJECTS AND METHODS

200 participants were selected through purposive sampling from district Faisalabad with age range of 35 to 55 years. Information was gathered through Montreal Cognitive Assessment, Positive Mental Health Scale and Multidimensional Perceived Social Support.

RESULTS

Results of bivariate correlation revealed significant positive correlation between cognitive functioning and positive mental health among middle aged adults. While social support played positive mediating role between cognitive functioning and positive mental health. In gender differences results confirmed the significant difference in terms of cognitive functioning, social support and positive mental health were found.

CONCLUSION

Perceived social support among middle age adults is linked with positive mental health and cognitive functioning.

KEY WORDS

Social Support, Mental Health, Cognitive Functioning

INTRODUCTION

Cognitive function of an individual evolves over the years, making the person more adept at handling the functions of daily life. A toddler for example is not able to have complex level of cognitive functioning, as compared with an older child. In the same manner, adults are able to handle more intricate cognitive aspects of mental functioning¹. Everyday life of an individual is regulated by these cognitive functions, making the person able to follow the basic activities, as well as engage in more complex and intricate tasks.

Age of an individual affects the cognitive functions, creating impairment in the late adulthood stages. However, middle age adults are viewed as having better cognitive and analytical skills as compared with the older adults². Nevertheless, the presence of cognitive issues in middle adulthood started arising, which indicates that a decline in the cognitive functioning has begun. A study has considered the notion that age resulted in decreasing cognitive functioning reflecting that in middle age, the individuals were more susceptible to erroneous perception, memory issues, poor decision making and other age related changes in the mental ability.³ Gradual decline in a person's mental and cognitive capacity surfaces as a slowdown in analytical processes, while other intellectual capabilities are also negatively affected as the age progresses^{4,5}.

Component of social support has been viewed as a main source of strengthening the psychological well-being of an individual. The findings of Bourassa, Memel, Woolverton and Sbarra implies that engaging in frequent social activities enables a person to feel connected with others, which helps them in staying emotionally grounded. On the other hand, people who are exposed to long term isolation and limited social interaction face deteriorating physical health and psychological well-being. In addition, their cognitive functioning also declines over time, due to the lack of social connection⁶. Wilson et al. has reported similar findings, highlighting the way lack of social stimulus and prolonged loneliness could be a probable risk factor in the initiation of Alzheimer in individuals⁷. These studies have strengthened the notion that lack of social support could add on to the life stressors of a person, which further accentuates the mental and cognitive deterioration. The study of Lewis, Turiano, Payne and Hill has hinted at the way having social support and positive interaction with others could instill a feeling of hope, bringing a sense of purpose in life⁸.

Lakey and Orehek have used the Relational regulation theory (RRT) to illustrate how the perception of having support from their social circle in terms of meaningful activities and conversations fosters a sense of connectedness. The concept of a social interaction as being meaningful is dependent on the subjective analysis of an individual, therefore, suggesting that the occurrence of social interaction is not the key to mental health. Rather, it is the view that a person has socially supportive community which

creates a sense of emotional well-being⁹. A similar point of view is reflected in the study of Cornwell and Waite, who emphasized that perceiving as socially isolated from others can result in lower psychological well-being. Furthermore, having a feeling of being socially disconnected increases the chances of experiencing cognitive impairment in older adults¹⁰.

The third variable which is a focal point in the study is gender, which is assumed to lead to differential cognitive capabilities in middle adulthood, along with differences emerging in the perceived social support and the quality of mental health. Although some researchers have not found any noticeable difference in the mental capacity of both genders and their perception of social support¹¹. However there are other researchers that have found gender differences to have an effect on the lifestyle and health of individuals. The study of Kendig, Browning, Thomas and Wells has proposed that the aging process and risk factors increase the chance of facing challenges while aging differ on the basis of gender¹². In a similar manner, there is a possibility that gender differences could lead to differences in sense of psychological and cognitive wellness. Moreover, gender differences are also illustrated in the study of Lyyra and Heikkinen who found that females who perceived themselves as having inadequate social connection had a greater risk of facing life threatening ailments as compared with males¹³, while Shankar, McMunn, Banks and Steptoe connected poor social support (perceived) as an underlying issue of mental health problems in females in older age group¹⁴.

The connection between middle age, perceived social support and its subsequent influence on the overall mental well-being and health of an individual is an under examined area. The current research has taken on the analysis of these variables to investigate how the perception of presence of significant social support in a person's life enables the individual to maintain mental health. There are few studies which have indicated the way social support and cognitive functioning are correlated, the presence of social support helping in the mental and emotional stability in a middle age adult¹⁵. The current study has further expanded the scholarly knowledge in this area, by analyzing the relationship between cognitive functioning and well-being, positioning the variable of social support as a mediator.

Better cognitive functioning and high social support improve positive mental health of middle age adults. After some time, the rate and seriousness of cognitive change and the variables that may affect this procedure can be dissected, and the one of a kind commitment this may need to positive emotional wellness can be researched. Current study has following hypotheses;

1. Social support would be a mediator between cognitive functioning and positive mental health in middle age adults.
2. There would be gender difference in scores of cognitive functioning, social support and positive mental health in middle age adults.

SUBJECTS AND METHODS

Participants

A sample of 200 married participants (100 Male & 100 Female) were selected through purposive sampling from different universities in district Faisalabad with age range of 35-55 years. All the participants were employed and had children. Participants with any Psychiatric

illness or physical disability were excluded.

Instruments

Montreal Cognitive Assessment (MoCA)¹⁶

The Montreal Cognitive Assessment was developed by Zaid Nasreddine. It is used for the screening of mild cognitive impairment. The Montreal Cognitive Assessment measures diverse cognitive domains such as attention, memory, language, concentration, language, conceptual thinking. Its administration time is 15-20 minutes. Its total score is 30. 26 or above scores is considered as normal and below score 26 showed cognitive impairment. Inter item reliability for the current sample is .70.

Positive Mental Health Scale¹⁷

The Positive Mental Health Scale was developed by Ganga & Kutty. The authors developed it to measure positive state of mind and positive functioning. Positive Mental Health Scale consists of 20 items. Authors developed version has reliable Cronbach's Alpha (.79). Its test re-test reliability is .84 and. In current research item consistency is .90.

Multidimensional Perceived Social Support¹⁸

It consists of 12 items to measure how one perceives his/her support system with respect of social support into three sources; family, friends and a significant other. Highest obtainable score is 84 while lowest obtainable score is 12. Higher scores indicate higher social support. Multidimensional Perceived Social Support is a valid tool to access social support. The reliability analysis of this scale was good (Cronbach's Alpha = .83). Cronbach alpha for current study is .93.

Demographic information contained age, sex, education, siblings, birth order, marital status, no of children, earner in the family, main earner, monthly income, occupation and number of friends.

Procedure

After getting approval of this research from board of study as well as from Board of Advance Study and Research from Riphah International University, Islamabad. Permission from the author of the scales was taken through email. Participants were approached through their departments. Written informed consent was signed before completing assessment protocols. The objectives of the study were clearly described to the participants. Confidentiality and right to withdraw from the research at any point in time was explained to the research participants. At the end their volunteer participation was acknowledged. Frequency distribution of all demographic variables was calculated by using descriptive statistics. Reliability analysis of the all scales was calculated using Cronbach's alpha. To check the relationship among all variables bivariate correlation analysis was used, whereas, t-test was used for comparing different variables. PROCESS macro Hayes¹⁹ was utilized for mediation analysis.

RESULTS

The results showed that majority of the sample were post graduates, had 4-6 children, had 4-6 friends, spent most of leisure time with friends and considered them happy in that company, and offered namaz as religious activity (see table 1 for details). Regression analysis showed that cognitive functioning was a significant predictor of positive mental health, without mediator ($B = 1.27, p < .01$) and with mediator ($B = .89, p < .01$). Whereas the results also revealed that perceived social support was confirmed to be a partial significant mediator between the relationship of cognitive functioning and positive mental health (table2).



Table 1
Frequency Distribution of Demographic Questionnaire (N=200)

| Respondent's Characteristics | | f (%) |
|------------------------------------|-------------------------|------------|
| Education | Graduation | 89 (44.0) |
| | Post Graduate | 111 (55.0) |
| Number of children | 0 | 25 (12.5) |
| | 1-3 | 63 (31.5) |
| | 4-6 or above | 112 (56.0) |
| Number of friends | No Friends | 8 (4.0) |
| | 1-3 | 76 (38.0) |
| | 4-6 | 116 (58.0) |
| Quality of time spent with friends | Happy | 193 (96.5) |
| | Boring | 7 (3.5) |
| Social Activity | Using a mobile phone | 59 (29.5) |
| | Spend time with Friends | 90 (45.0) |
| | Watching TV | 51 (25.5) |
| Ways of entertainment | Outing | 77 (38.5) |
| | Watching TV | 75 (37.5) |
| | Reading Books | 48 (24.0) |
| Religious activity | Namaz | 117 (58.5) |
| | Recitation of the Quran | 63 (31.5) |
| | Sadqa | 20 (10.0) |

Table 2
Impact of Cognitive Functioning on Positive Mental Health Through Regression (N=200)

| | Model 1 | Model 2 | Positive Mental Health |
|--------------------------|---------|---------|------------------------|
| Predictors | B | B | 95% CI |
| Constant | 26.89** | 18.42** | [10.10, 28.73] |
| Cognitive Functioning | 1.27** | .89** | [.49, 1.29] |
| Perceived Social Support | | .33** | [.25, .41] |
| R ² | .14 | .34 | |
| F | 32.02** | 51.10** | |
| ? R ² | | .06 | |
| ? F | | 11.91** | |

**p <.01; B for Unstandardized regression coefficient; CI for Confidence interval

The results of table 3 showed significant gender differences in terms of cognitive functioning, positive mental health and perceived social support. The mean scores on cognitive functioning, positive mental health and perceived social were significantly higher among female respondents as compared with male respondents (see table 3 for details).

Table 3
Gender differences through Independent Sample t-test for Cognitive Functioning, Positive Mental Health and Social Support (N=200)

| Variable | Male (n = 100) | | Female (n = 100) | | t | p | 95%CI | |
|--------------------------|----------------|-------|------------------|-------|-------|-----|--------|-------|
| | M | SD | M | SD | | | LL | UL |
| Cognitive Functioning | 24.77 | 4.10 | 26.64 | 3.80 | -3.35 | .00 | -2.97 | -.77 |
| Positive Mental Health | 55.73 | 14.81 | 63.27 | 11.56 | -4.01 | .00 | -11.25 | -3.84 |
| Perceived Social Support | 51.83 | 21.25 | 58.24 | 16.83 | -2.36 | .02 | -11.76 | -1.06 |

DISCUSSION

The findings of the study is about cognitive competence, positive mental health and perceived social support. In case of others researches relationship has been observed among them, where the scholars have asserted that the absence of positive social interaction, or the lack of meaningful community connectedness can create different mental health issues for a person²⁰. From young age to older adulthood, having a supportive social setup is crucial in maintaining physical and mental well-being, with an individual's offspring holding a prime position in the supportive network^{21,22}. The elderly who had limited interaction with their children and relatives were more likely to face challenges related to their mental and physical health over the years.

Since, social connection is regarded as one of the basic elements on which the well-being and survival of a person is dependent upon, the perceived absence or presence of social support is of critical importance. Kuiper et al. have concluded that the poor quality of social relationships increased the chances of developing memory issues, while their mental health is further complicated by the experience of depression among these people²³. Likewise, Liu, Gou and Zuo have established connection between experience of social isolation and depression in older people, viewing the component of social support as a mediator²⁴. The current study has also found that social support functions as a mediatory between mental health and cognitive functioning. When individuals are exposed to environment where they find little support from the community and their close social circle, they are susceptible to the development of poor mental health, which can be reflected in the form of memory issues or depression²⁵. Moreover, due to the presence of social support and helpful presence of significant others, the quality of mental health is significantly affected in a positive manner^{26,27}.

There are cases where the level and quality of actual social support may be different than the perceived nature of the support. Therefore, analysis of perceived social support helps in understanding the way subjective interpretation of being surrounded by helpful people leads to better memory, problem solving and decision making skills^{28,29}. In addition to this, the belief that a person has support from closed ones facilitates in enhancing the emotional and psychological well-being of a person³⁰. Furthermore, the cognitive impairment depicted in the sample was found to be more profound in respondents who had poor perceived social support. In the same manner, Shankar, Hamer, McMunn and Steptoe have argued that prolonged feelings of social isolation in late adulthood resulted in a decline in the ability to memorize and timely recall memories³¹. It has also been stated that being a part of the nursing care or retirement centers provides an individual with the chance of engaging in social interaction^{32,33}. As a result of this perception of social inclusion, the deterioration in cognitive competence and other associated mental health issues is lower as compared with those older adults who are not living in such supportive environment³⁴.

Another dimension examined in this research was associated with the role of gender in creating differences in terms of cognitive and mental functioning. In the present study, gender is seen as playing an important role in determining the mental health status and cognitive functionality, while social support perception also differs between males and female, as females had higher scores on all three variables. Contrary to current findings, gender difference are

evident in the experiences pertaining to loneliness and social isolation, as females were found to have more intense feelings of loneliness and perceived as having lower levels of social support than males³⁵.

CONCLUSION & RECOMMENDATIONS

It can be concluded that perceived social support among middle age adults is linked with positive mental health and cognitive functioning. An individual who is surrounded by well-meaning and helpful people provide the individual a buffer against the anguish of being alone, which ultimately helps the person in enhancing the sense of emotional and mental well-being. Similarly, better cognitive functioning of an individual fosters healthy mental state. It can also be concluded that gender differences exist in the way social support is perceived, along with the implications on cognitive and mental well-being.

Cultural dynamics also influence the way social support network are established and function, therefore the dimension of culture can be analyzed in promoting social support and well-being among different age groups. Furthermore, along with questionnaires, qualitative interview can be conducted to gather subjective opinions about social support and mental health experiences of individuals in different age groups. Protective factors are much important in human's life, these can change meaning of life. As child can't be brought up without parenting, similarly adults also need their offspring's in their later life as a support. We may find that people living in their own homes with social support can have better mental health as compare with living in old homes. It can be great a great findings for the nation and for policy makers at the same time.

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