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Original Research Article

Quality of Life and Psychological Distress among Residents of Government Run Old Age Homes in Delhi

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Abstract: World is ageing as an obvious consequence of the process of demographic transition and it is happening fastest in the developing world. Simultaneous disintegration of joint family system and changing social values, often obligate the elderly segment of society to live alone or in old age homes which make them increasingly vulnerable to mental health problems and other undesirable effects influencing their quality of life. The study aims to investigate the factors of psychological distress and quality of life among inhabitants of old age homes in Delhi. The cross-sectional study was undertaken in four government administered old age homes (OAHs)) in Delhi. 2 of these were free stay and other 2 being pay and stay OAHs. In all 148 subjects of both sexes and aged 60-85 years constituted study sample. Study tool included a semi structured proforma to assess Sociodemographic profile; WHOQOL-BREF scale and K-10 scale were used for QOL and psychological distress respectively. 2/3rd OAH inhabitants were female and rest 1/3rd being male. WHOQOL-BREF domain scores were higher in pay/stay homes as compared to free stay homes, furthermore all 4 domains score were significantly higher for male residents on *t'* test. On K-10 scale 29.7%,7.4%, 2.7% residents were categorised as likely to have mild disorder, likely to have moderate disorder and likely to have severe disorder respectively whereas 60.1% were likely to be well, furthermore female were found to have significantly higher score on *t'* test. Educational qualification and monthly income demonstrated significant positive correlation with all domains of QOL and sig negative correlation with psychological distress. Psychological distress was found to be higher in the free stay homes which could be attributed to lower level of education and income in these residents. QOL had significant negative correlation with psychological distress. Programs targeting modifiable risk factors could result in improvement of QOL and reduce psychological distress in OAH residents.

Keywords: Mental health, Old age Home, Psychological distress, Quality of life

INTRODUCTION

Population ageing is result of demographic transition and it is experienced fastest in the developing world. Globally, the share of the 60 and above population have increased from only 8% of world population (200 million people) in 1950 to around 11% (760 million) in 2011, with further expected to reach 22% (2 billion) by 2050 [1]. According to the 2011 census, population share of elderly in India stands at 8% which is projected to increase to 10.1% by 2021 and 18.3% (300 million) by 2050 [2, 3]. Population aged 60 years and above in the city of Delhi is 5.9% according to 2011 census [2].

Given the rate of population aging, it becomes important to focus on aging issues related to poor health and to take effective measures to improve the quality of life in old age. Increasing age is one of the risk factors affecting physical and psychological well-being which has a significant impact on their quality of life. Psychological distress is defined as emotional suffering characterized by the symptoms of depression and anxiety and sometimes could be associated with somatic symptoms. Psychological distress is treatable. Detection of psychological distress/morbidity and its appropriate management not only shortens the duration of suffering but also improves the overall quality of life [4]. There is a general consensus that important risk factors for psychological distress in old age are female sex, somatic illness, cognitive impairment, functional impairment in activities of daily living, lack or loss of social contacts, and a history of depression [5]. Studies have found that between 27 and 48% of older adults suffer from psychological distress. Most investigations of psychological distress in older persons have found that it occurs at a higher rate in institutional settings than in private households, although conflicting results have also been presented [5].

Mental health status and the quality of life of the elderly residents of old age residents is affected by multiple factors such as poor financial condition and living arrangements, and breakdown of the family support system [6]. Traditional family roles have become more elusive, increasing issues of community care and social support for persons without families are emerging, which results in more demand on long-term old age care homes in urban India. The ownership of Indian old age homes varies from government to non-governmental organizations, charitable trusts, missionary or faith based groups and private groups. As a number of government policies are directed to this group of population, it is important to know the profile of wider range of mental illnesses and distribution of severity among the inmates of government run old age homes. Hence the current study was undertaken with the aim to investigate the factors of psychological distress and quality of life among inhabitants of in government administered old age homes in Delhi.

MATERIALS AND METHODS

Study design

This was cross-sectional descriptive study undertaken in government administered old age homes in Delhi.

Study setting & Sample

Although, all four government run old age homes (OAHs) in Delhi were included in the sample, their administrative structure varied in terms of ownership, resident capacity, and payment structure. The structures of these OAHs varied from Delhi government (n=1, male-female both, resident capacity=67, free stay) to New Delhi Municipal Corporation (NDMC; n=2, 1 is only females and other one both sexes, resident capacity=34 and 55, pay and stay) to partnership between government and NGO on public-private partnership (PPP; n=1, both sexes, resident capacity=26, 50% pay and 50% free) mode. Two of these were pay and stay types, while one was totally free stay and the other was 50% free and 50% paid. The number of residents was more in the free stay OAH. Except one being a female old age home, all other accommodated both males and females.

Sample criteria

The sample included the elderly physically fit old age inmates of both sexes, between 60-85 years of age who stayed there at least one year and willing to provide informed written consent to participate in the study. Those already medically diagnosed with psychiatric or neurological illnesses were excluded from the study. After official permissions from the appropriate authorities, a total of 148 (out of 182), who met the inclusion criteria constituted the study sample. This is important to mention here that 5 elderly due to some apprehension, very keenly agreed to participate in the study but only verbal consent.

Tools

1. Semi-structured proforma for socio-demographic profile was developed for the study purpose.
2. World Health Organization Quality of Life Bref scale (WHOQOL-BREF)[7]
3. Kesseler-10 Scale (K-10)[8]

Data Analysis

The obtained data was analysed with the help of SPSS Version 20.0, Frequency distribution and cross-tabulation used to create summary tables and compare items.

Ethical Consideration

Approval was obtained from the academic committee of NIHFW, New Delhi. Informed written consent was obtained and confidentiality and privacy of the study subjects were maintained throughout.

RESULTS

Table-1 presents the characteristics of sample in four different old age homes as well as for the total sample. The majority of study sample of 148, was constituted by female residents with 62.8% share (N=93) while male contributed 37.2% (N=55) of population. The mean age of the sample was 72.81 years (Minimum 61 and maximum 85 years). More elderly were in the age group of 65-70years (N=38 & 25.7%), followed by 80-85 (N=34 & 23%), 70-75 (N=29 & 19.6%), 60-65 (N=28 & 18.9%), 75-80 (N=19 & 12.8%) age groups. A majority of the sample (70.9%, N=105) was widow/widowers and 89.2% (N=132) were not living with the partners. The educational status showed that a total of 45 (30.4%) elderly were illiterate followed by 41 (27.7%) elderly with secondary level education and 37 (25%) with graduation degree. While 95 (64.2%) elderly had no monthly income, 51 (34.5%) had a monthly income of => INR. 5000.00/. A majority (N=89, 60.1%) of the elderly has been staying in old age homes for the past 1-5 years followed by 42 (28.4%) between 5-10 years, and 17 (11.5%) elderly staying more than 10 years.

Table 1: Socio-demographic Profile

SOCIODEMOGRAPHIC PROFILE		OLD AGE HOMES				TOTAL
		S1 BINDAPUR	S2 ARADHANA	S3 SANDHYA	S4 LAMPUR	
SEX	MALE	15	0	29	11	55 (37.2%)
	FEMALE	37	29	16	11	93 (62.8%)
AGE GROUP	60-65 YRS	11	5	8	4	28 (18.9%)
	65-70 YRS	10	11	13	4	38 (25.7%)
	70-75 YRS	12	3	10	4	29 (19.6%)
	75-80 YRS	8	4	4	3	19 (12.8%)
	80-85 YRS	11	6	10	7	34 (23.0%)
MARITAL STATUS	SINGLE/ UNMARRIED	5	3	1	7	16 (10.8%)
	MARRIED	4	0	13	2	19 (12.8%)
	SEPERATED	4	1	0	0	5 (3.4%)
	DIVORCED	1	1	0	1	3 (2.0%)
	WIDOWED	38	24	31	12	105 (70.9%)
LIVING WITH PARTNER	YES	2	0	12	2	16 (10.8%)
	NO	50	29	33	20	132 (89.2%)
EDUCATIONAL STATUS	ILLITERATE	28	1	0	16	45 (30.4%)
	PRIMARY	10	2	1	1	14 (9.5%)
	SECONDARY	10	13	15	3	41 (27.7%)
	HIGHER SECONDARY	1	0	0	0	1 (0.7%)
	GRADUATE	3	7	25	2	37 (25.0%)
	POSTGRADUATE	0	6	4	0	10 (6.8%)
MONTHLY INCOME	Nil	49	11	13	22	95 (64.2%)
	1-5000	2	0	0	0	2 (1.4%)
	Above 5000	1	18	32	0	51 (34.5%)
FINANCIAL DEPENDENCE	YES	46	2	7	21	76 (51.4%)
	NO	6	27	38	1	72 (48.6%)
STAY DURATION AT OAH	1-5 YEARS	37	14	26	12	89 (60.1%)
	5-10 YEARS	11	13	12	6	42 (28.4%)
	ABOVE 10 YEARS	4	2	7	4	17 (11.5%)

Table-2 exhibited data for all four domains of quality of life namely physical, psychological, social and environmental QOL alongwith psychological distress scores in all selected old age homes inhabitants.. It was revealed that the mean scores for physical (*M*=58.99; SD=11.33) and psychological (M=57.01; SD=12.01) quality of life were better than the social (M=50.13; SD=9.15) and environmental (M=50.07 (SD=11.52) quality of life. However, the quality of life in all domains was better in pay and stay OAHs as compared to either free or 50% free old age homes.

Table 2: Quality of life and psychological distress among OAH residents

QOL and PD		Old Age Homes				Total
		S1 Bindapur	S2 Aradhana	S3 Sandhya	S4 Lampur	
Quality of Life (WHOQOL-BREF) Mean score	Physical	52.89	61.45	62.84	57.27	58.99
	Psychological	51.4	62.83	62.31	51.73	57.01
	Social	48.17	49.59	54.44	46.64	50.13
	Environmental	47.29	56.79	56.69	34.23	50.07
Psychological Distress (K-10)	Likely to be well	16	27	40	6	89 (60.14%)
	Likely to have mild disorder	23	2	5	14	44 (29.73%)
	Likely to have moderate disorder	10	0	0	1	11 (7.43%)
	Likely to have severe disorder	3	0	0	1	4 (2.70%)

The findings on psychological distress among the elderly population in OAHs indicated a majority (n=89; 60.1%) reported no psychological distress followed by mild (n=44; 29.7%), moderate (n=11; 7.4%) and severe (n=4; 2.7%) psychological distress. Out of the total residents who reported no psychological distress, a majority (n=67; 75.3%) was from the pay and stay OAHs while a majority of residents (n=52; 88.1%) in free or 50% free pay structured OAHs reported either mild or moderate or severe psychological distress.

Gender differences on Quality of Life, Psychological distress

An independent sample *t* test was conducted to compare the mental health profile scores in male and female elderly people as displayed in table-3.

Table 3: Gender differences on mental health profile (t' test)

QOL & Psych distress	Mean Value (SD)		*t' Statistics*	P
	Male (N=55)	Female (N=93)		
Physical QOL	62.9 (9.8)	56.6 (11.6)	3.38	< 0.01**
Psychological QOL	60.1 (11.5)	55.2 (11.9)	2.44	< 0.05*
Social QOL	51.1 (8.3)	49.5 (9.6)	1.04	> 0.05
Environmental QOL	52.5 (11.2)	48.6 (11.5)	2.03	< 0.05*
Psychological Distress	17.7 (3.7)	19.3 (5.2)	-2.1	< 0.05*

Significant difference was observed in Physical QOL scores between male (M = 62.95, SD = 9.763) and female (M = 56.65, SD = 11.588); *t* (146) = 3.383, p<0.01; higher mean score in male suggesting higher physical QOL in male, Psychological QOL scores between male (M= 60.09, SD=11.501) and female (M= 55.18, SD= 11.993); *t* (146) = 2.443, p < 0.05; higher mean score in male representing higher psychological QOL in male. Environmental QOL scores between male (M= 52.55, SD= 8.308) and female (M= 48.60, SD= 9.601); *t* (146) = 2.034, p < 0.05; higher mean score in male reflecting higher environmental QOL in male.

No significant difference found in Social QOL scores between male and female.

Significant difference in K-10 scores exhibited between male (M =17.73, SD = 3.704) and female (M = 19.28, SD = 5.247); *t* (141.36) = -2.102, p = <0.05; higher mean score in female suggested higher level of psychological distress in female.

Relationship between Sociodemographic factors with Quality of life and Psychological distress

A Pearson product moment correlation coefficient (r) was computed to assess the relationship between socio-demographic variables and among the selected measured variables. To establish the significance of relationship 'p' value of <0.05 was considered significant. Correlation matrix in Table-4 exhibited that with N=148, Physical QOL depicted significant positive correlation with educational qualification (r = 0.401, p<0.01), monthly income (r = 0.306, p<0.01) and significant negative correlation with age (r = -0.180, p < 0.05). While Psychological QOL exhibited significant positive correlation with educational qualification (r = 0.566, p<0.01), monthly income (r = 0.400, p<0.01) and duration of stay (r = 0.164, p = 0.05). Whereas social QOL demonstrated significant negative correlation with living with partner status (r = -0.293, p<0.01) while positive significant correlation with educational qualification (r = 0.211, p = 0.010) and monthly income(r = 0.185, p < 0.05). On

correlation environmental QOL displayed positive correlation with educational status (r = 0.613, p<0.01) and monthly income (r =0.480, p<0.01). Psychological distress displayed significant correlation with educational status (r = - 0.576, p<0.01) and monthly income (r = -0.551, p<0.01).

Table 4: Correlation of QOL and Psychological distress with Sociodemographic profile

QOL & Psychological distress		Correlation	Sociodemographic Profile			
			Age	Edu. Qual.	Monthly income	Duration of stay in OAH
QUALITY OF LIFE (WHOQOL BREF)	Physical QOL	Pearson Correlation	-.180*	.401**	.306**	-.064
		Sig. (2-tailed)	.029	.000	.000	.440
	Psychological QOL	Pearson Correlation	-.058	.566**	.400**	.164*
		Sig. (2-tailed)	.484	.000	.000	.046
	Social QOL	Pearson Correlation	-.002	.211**	.185*	.063
		Sig. (2-tailed)	.985	.010	.024	.444
	Environmental QOL	Pearson Correlation	-.053	.613**	.480**	.122
		Sig. (2-tailed)	.524	.000	.000	.139
Psychological distress (K-10)	K-10 score	Pearson Correlation	.102	-.576**	-.551**	-.109
		Sig. (2-tailed)	.219	.000	.000	.186
*. Correlation is significant at the 0.05 level (2-tailed)						

DISCUSSION

This study examined the relative contributions of fixed factors for psychological distress and QOL in a combined sample of government OAHs residents. While psychological distress was found to be higher, and QOL lower in Free stay (S1/S4) OAHs as compared to pay and stay homes (S2/S3). The proportion of participants identified as having symptoms of psychological distress (39.9%) was in line line with previous studies [5]. than that reported in other studies In concurrence with the other studies higher psychological distress is reported in the case of elderly women as in elderly who had no education reported. Education would render the elderly to engage in cognitively stimulating activities, have better economic outcomes, and also make them physically more active that could help fight distress [9, 10]. 2/3rd of the elderly residents were found to be classified as likely to be well on K-10 scale whereas 1/3rd displayed mild, moderate and severe level of psychological distress. More than 3/4th OAH residents out of those displaying mild, moderate and severe level of psychological distress were residing in free type OAHs. The finding could be explained in terms low income at old age, which could be an important risk factor for becoming psychologically distressed, and stressors account for part of this increased risk [11].

CONCLUSION

Ageing is global phenomenon it is influenced by various biological, psychological, economic and sociological factors. Low socioeconomic status, decreased family association, poor physical infrastructure and health services in old age homes and restricted activities of daily living are some of the factors affect the psychological distress and quality of life among elderly residents of OAHs.

RECOMMENDATIONS

Study highlighted the need to build appropriate physical infrastructure in old age homes along with adequate medical facilities including access for psychological counselling, recreational facilities besides providing them social security benefits schemes of government.

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