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Knowledge, Perceptions, and Attitudes Towards Dementia Among Medical Students in Pakistan

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ABSTRACT

The objective of this research was to assess the participants' knowledge and attitudes towards dementia and older people in a broader manner. A Dementia education workshop for undergraduate students was held. Students fill out a questionnaire before and after the workshop. The Questionnaire was prepared by deep insights into previous literature to determine the knowledge and attitudes of 221 participants towards dementia. Attitudes towards individuals with dementia have shown substantial positive improvements before and after the workshop, while attitudes towards older people have not been affected. Respondents were reasonably well-known general dementia but had little awareness of particular risk factors. A significant percentage of participants thought dementia symptoms could ameliorate even at an early stage of the illness for individuals who were diagnosed with dementia. Medical and nursing students require more professional, practical, and theoretical skills and learning in their studies. It is equally essential for students, via workshops such as this one, that they get to know the humanistic aspects of illnesses and situations. Fresh thinking and additional resources may be required to combat continued widespread misunderstandings and stigma development towards dementia.

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1. INTRODUCTION

Dementia is a disease that has a high stigma burden, requiring special needs treatment. Stigma is an attitude of condemnation of individuals with mental illness in psychiatry. Psychiatric illnesses are prevalent in Asia. However, insufficient care is provided for certain Asians. Earlier studies showed that mentally ill Asians were regarded as threatening and hostile.

Although about 30% of individuals aged 8 years are susceptible to dementia in some form (Jefferson et al., 2012). Research indicates that public awareness of the illness is limited (McParland et al., 2012). Studies have revealed that there are few programs and facilities available to enhance people's perceptions, knowledge, and attitudes towards dementia and dementia-related healthcare facilities to increase the social inclusion of dementia patients. (Handley et al., 2015). There is an emergency call from the world health organization that people's knowledge and perception of dementia, interventions, and early diagnosis and prevention could be the priorities of national and international public health agencies (Burke et al., 2021). Current studies of dementia and its stigmatized burden show social isolation and prejudice even in medical environments. It may explain partly deficiencies in the United Kingdom's early diagnostic dementia (Burgener et al., 2015). Emotional and psychological suffering, and social isolation (Balouch et al., 2021). Burgener indicate that families felt shame about taking care of patients with dementia, and that worsened their poor care experience (Burgener & Berger, 2008).

Stigma is the attribution of a socially discredited stereotype by a broader society that causes a person to feel somehow rejected — an identity that is damaged (DiZazzo-Miller et al., 2015). The same pattern emerged in social research regarding ethnicity, sexuality, and health settings such as HIV/AIDS and disability (Halek et al., 2012). Public knowledge of dementia has increased in recent years, including the tendency for more profound empathetic representations (Isaac et al., 2017). But fear of agitation due to dementia may lead to persistent greater levels of social isolation (Zangrillo et al., 2020). In addition, emphasizing confinement and control, rather than personally focused methods, may be viewed as rational and thus acceptable and more probable in institutional care settings. Surveillance or assistive technology is promoted to monitor people who are acting aggressively, including hikers—a distressing, misunderstood problem, often because of the reason for their admission to nursing care (Halek et al., 2012), a possible solution that has important implications for ethical issues and human rights. This research analyses both existing public understanding of dementia and dementia attitudes utilizing the time and life survey by Northern Ireland. We investigate, in particular, the socio-demographic variables linked with (a) lay awareness of dementia, (b) lay beliefs about dementia, and (c) control and coercive attitudes that individuals with dementia think are acceptable. The incidence of dementia has significantly risen with the aging of the world population. In 2017, over 50 million individuals globally suffered from dementia and by 2050 it is projected to increase to 131,5 million (Sun et al., 2014). The incidence of moderate cognitive impairment in Taiwan in 2013 was 18.76 per cent, while the prevalence of dementia was 8.04 per cent, doubling every 5 years beyond age 80 (Sun et al., 2014).

So far, in Pakistan, no published randomized controlled test (RCT) or longitudinal cohort research has been performed on Alzheimer's disease or other dementias. In addition, despite the increasing prevalence and dementia burdens in South and South-East Asia, only a few RCTs in that area have been completed (Ahmad et al., 2013). In these circumstances, this represents less than 2% of all RCTs. Several issues, including the lack of education programs,

research facilities, and other support services, such as research records, brain banks, and adequate neuroimaging expertise, have led to this relative neglect of dementia research (Balouch *et al.*, 2021). Furthermore, the demographic distribution of the nation, which had a 'youth bulge', removed older individuals from their health and medical research activities. The average life expectancy in Pakistan until recently was low, making the percentage of individuals with age-related chronic illnesses modest in comparison with the more urgent problems of maternity and children's health and infectious diseases. Thus, policy, practice, and research are urgently needed to concentrate more on the needs of older people, especially those with dementia.

Among older individuals, people still have less knowledge and awareness of dementia than of other chronic illnesses. Still, ordinary people lack knowledge and awareness regarding dementia, but the same pattern has emerged among health professionals (Smith *et al.*, 2019). In addition, early diagnosis, prompt treatment, and adequate quality of care may be prevented by stigma (Burgener *et al.*, 2015). Promote awareness and eliminate dementia Stigma and promoting a community that supports dementia are the objectives of promoting a community that supports dementia. A dementia-friendly community is defined by Alzheimer's Disease International (ADI). as "a location or culture where dementia patients and their caregivers are empowered, encouraged, and included in society to realize their rights and to appreciate their full potential." ADI proposes four components as the cornerstone of the dementia-friendly community: individuals (including people living with dementia or PWDs), communities (social and physical environments), organizations (dementia-friendly organizations, access to proper health care) and partnerships. However, research on friendly dementia has just begun in recent years and the link between knowledge and dementia attitudes is unclear. References. Factor associated with public knowledge. Hence, the study was aimed at accessing knowledge. And attitudes of medical students towards dementia and older people in Pakistan. It will help to incorporate studies that are helpful in managing the early diagnosis, prevention, and intervention practices of dementia among the older community in Pakistan.

2. METHOD

2.1. Participants

Background students were selected to attend a two-hour session on dementia education at Punjab Medical University Faisalabad. All students currently enrolled in their undergraduate medicine degree were eligible to participate. Participants participated through an online link that had registration credentials along with a questionnaire designed to access the attitudes and knowledge of participants towards Dementia.

2.2. Procedure

A questionnaire was prepared to access the knowledge and attitudes of respondents towards dementia by deep insights into previous literature. Respondents were asked to fill out the questionnaire before and after an informative workshop on dementia prevalence (Time 1 and Time 2). Workshops were advertised through email and recruiting postings on the social media sites of student organizations. Participants participated in the session on 'Dementia Detectives.' This is a workshop that was initially designed for high school pupils between the ages of 14 and 16 and is now adapted for university settings in the UK (Isaac *et al.*, 2017). The program focuses on increasing knowledge of dementia and developing positive, dementia-centered attitudes. The detective concept is integrated into the program

to dissipate the myths and essential messages around dementia. Facilitators are organizing a workshop, including the presentation of materials and participatory activities.

Activities involve viewing and reflecting on a film about someone with Alzheimer's disease, decoding words to uncover important themes such as "dementia is not equal to old age" and writing down what they think about hearing the term dementia (provides facilitators with certain misunderstandings which can be addressed during the workshop). A case study of a dementia-living fictitious individual is also shown, who is forcefully detailed. The creator of the workshop ensured and made adjustments that data obtained before and after the workshop was culturally appropriate and relevant, including case studies reflecting the Pakistani population in accordance with family names, roles, and activities. Respondents received an electronic link a week before the start of the workshop with a questionnaire. And respondents were asked to fill out the same questionnaire just after the dementia education workshop. Participant anonymity was maintained and guaranteed by putting unique codes on their answers both before and after the workshop (Time 1 and Time 2).

2.3. Measures

Dementia knowledge was evaluated in a two-dimensional way: as (1) more general or tacit background information (this is a mental illness, related to aging, older people, or another word) and as (2) more precisely linked risk factors (is it related to heavy smoking, alcohol consumption, poor diets, lack of physical activity, hypertension, or is it getting worse with the progression of age?)

At both times, participants completed various measures. First, they invited participants to hear about dementia and to learn more about dementia. There are 10 items on the Adolescent Level of Contact Scale (ALoCS) (Parveen et al., 2020). Internal coherence was measured in our studies at .85 and .88 before and after the workshop respectively. The scale was used for the evaluation of respondents' direct or indirect contact with people suffering from dementia through multimedia platforms. The Linker scale consists of 5 points used to evaluate each item. Another scale was designed for adolescents. The adolescents' attitudes towards dementia consist of 23 validated points for evaluation of adolescents' knowledge and attitudes towards dementia (Griffiths et al., 2018). The measure includes three subdomains: self-sacrifice, perceptions of dementia, and empathy for those who live with dementia. Items are evaluated using a Likert scale of 5 points, ranging from strong disagreement 'to' strong agreement. The internal consistency for this scale in our research was 0.73 and 0.81 before and after the workshop respectively. Another scale was used in this study, named Attitudes towards older people scales (ATOP), consisting of 34 validated measures, including 17 positive items and 17 negative items. The scale encompasses 3 aspects: physical appearance, similarity, and the manner of interacting with sonic interactions across the ages. The internal consistency for this scale in our research was 0.74 and 0.82 before and after the workshop respectively. The Sickness Perceptions Questionnaire is a nine-point validated test that measures: identification perceptions (symptoms), perceived chronology, disease effects, personal control and treatment management, worry, source of illness, consistency (included in the disease), and emotional representation. The scale for us with a broad array of illnesses and diseases has been adapted (Broadbent et al., 2015). The short IPQ was used in this research to evaluate perceptions of dementia. The Brief IPQ) is one item for measuring each impression of illness on a 10-point Likert scale. The 'cause' scale includes respondents identifying 3 main variables that cause dementia as 'head damage, '.

3. RESULTS

3.1. Preliminary Analysis

A total of 243 individuals were enrolled in the sessions. Of them, 221 participated and completed one questionnaire. The analysis is given here comprised 221 participants. The majority of the participants were female (63.9%) participants were aged 18 to 24 years (see **Table 1** for participant demographics). Participants showed positive attitudes towards dementia as almost all participants stated that they had heard of dementia and were willing to learn more about dementia and related outcomes.

Table 1. Demographics of participants.

Variable	N (%)
Age (years)	
18	1(.45)
19	00
20	8(3.6)
21	13(5.9)
22	54(24.4)
23	78(35,2)
24	67(30.3)
Gender	
Male	80(36.1)
Female	141(63.9)
Education/ course	
Medicine	150(67.9)
Pharmacy	71(32.1)

3.2. Contact Level

The adolescent contact level scale was used to assess how many individuals had contact with dementia before. In general, the participants' degree of indirect interaction with dementia ($M = 12,12$, $SD = 5,07$) was moderate and direct contact ($M = 9,04$, $SD = 4,67$) was low. The most common methods of contacting participants with people suffered from dementia were via viewing TV-shows/movies ($N=91\%$, 94%), through internet sources ($N=87\%$, 89%) and social media community campaigns ($N=41\%$, 42%)).

3.3. Alteration in Perceptions and Attitudes Towards Dementia

A sample paired t-test was performed for evaluation of respondents' attitudes and understanding of dementia, either changed or not after the workshop. There was a substantial increase in respondents' positive attitudes towards dementia in both time of the workshop (measured by AADS) [$t(95) = 8.43$, $p < 0.001$] Time 1 scores ranged from 65 to 107 ($M = 87.91$, $SD = 7.87$) and the Time 2 scores vacillated from 78 to 109 ($M = 91.7$, $SD 8.17$). Dementia discernments changed across the two time periods (see Table 2.). Significant increases in dementia perceptions impact people's lives in Time 1 ($t(95) 3.927$, $p < 0.001$), control over the disease of a dementia patient ($t(97) 4.12$, $p < 0.001$), worry level of the dementia patient ($t(95) 2.12$, $p < 0.05$), and understanding the dementia of the individual's participation ($t(96) 10.40$, $p < 0.001$). Score measure by ATOP were ranged from 103 to 154 between Time 1 ($M = 124.12$, $SD = 12.32$), and for Time 2 score were 98 to 167 ($M = 124.13$, $SD = 13.16$). For the rest of the items, no notable modifications were observed. In Time 1, 2 individuals said that they knew no dementia causes, whereas, in Time 2, all applicants could provide no less than one reason. Currently, 27% of participants recognized age as a factor in

dementia and it dropped to 8% at time 2. Approximately 29% of participants were skilled to identify possible dementia risk factors accurately at the time, which after the workshop rose to 51%.

Table 2. Knowledge and attitude towards dementia.

Change in knowledge, Perceptions towards dementia between Time1. and Time 2.	Time 1 (%)	Time 2 (%)
How much does dementia affect a person's life?	80.12	76.00
How long has a person suffering from dementia illness will continue?	87.00	83.00
How much you are concerned about the patient suffered from dementia?	83.00	91.00
How do you think that symptoms are contributed to dementia illness?	69.80	81.00
How much a patient suffered from dementia could treat their illness?	29.00	51.00
How much does dementia affect a person's emotions?	76.00	91.00
How do you understand dementia?	33.00	79.00
How much control do you think is needed to overcome dementia?	41.00	74.00
No one or more leading causes of dementia?	51.00	78.00
Skilled to identify dementia risk factors?	27.00	51.00
In contact with a patient with dementia (media)?		
Tv shows/ movies	91.00	94.00
Internet sources	87.00	89.00
Community advertisement	41.00	42.00
Aging is a leading factor in dementia?	27.00	8.00

4. DISCUSSION

The objective of this research was to investigate the dementia knowledge and attitudes of medicine and pharmacy students in Pakistan. The results showed a broad range of variations in attitudes about dementia and insufficient understanding among nursing personnel. However, their general attitude about dementia was favourable.

The training is titled 'Dementia is not a naturally occurring aspect of aging,' and a younger individual with dementia is shown in the workshop video. It may thus be that the students did not view the 'older folks' as a demographic throughout the session and so their opinions towards this group were not affected. This could be further investigated by utilizing qualitative techniques to help us understand how the workshop affects the attitudes of participants. The amount of interaction with individuals with dementia has historically varied according to available studies. However, there were no changes in the views of the participants towards the elderly. One of the most important messages A study conducted in Australia revealed that 31% of teenagers said that they had never been in contact with a person with dementia other than by the way, and 24% said they had seen people from their friends and family suffering from dementia (Baker et al., 2019). Further, 23% of teenagers in England have claimed knowledge of someone with dementia (Isaac et al., 2017).

This may underline the development of dementia in the media or reflect variations across nations. Because mass media campaigns are an effective way to distribute messages related to health, this is possible in Malaysia and is now being studied with regard to the dissemination of information linked to cancer (Schliemann et al., 2018). Closer interaction with individuals with dementia is essential for stigma reduction, which makes it necessary to guarantee the participation of people with dementia in developing and delivering interventions and proper knowledge and awareness among the younger population of Pakistan (Balouch et al., 2021).

4.1. Dementia Knowledge

The research participants characterized dementia by referring to symptoms like oblivion and bewilderment. In accordance with past studies of people in Pakistan and India, dementia has often been seen as a disease of forgetfulness and as a consequence of normal aging rather than a disease of "forgetting". This result is corroborated by a comprehensive assessment of public awareness about Alzheimer's disease and dementia, which found that laypeople believe dementia is part of the natural aging process (Parveen *et al.*, 2018). When dementia is considered part of normal aging and not because of a degenerative brain disease, this will have negative implications for the planning and provision of care which will, in turn, raise the burden of care for both family members and careers.

Participants in this research reported some training, mainly on the symptoms of dementia. This is positively so since previous research has shown that dementia training improves the knowledge of infants about dementia and has a beneficial impact on the care of dementia patients (Jefferson *et al.*, 2012). This connection between dementia-specific training and dementia knowledge may potentially have beneficial effects on nursing home care if dementia-specific training is required. Welsh *et al.*, (2010) endorsed this requirement, saying that health workers need to be educated to understand the signs of dementia, have adequate knowledge to assist the family members, and offer high-quality daily care for individuals with dementia. However, information alone cannot always alter how individuals' approach and deal with dementia. Qualitative dementia care, structure, and leadership are essential and required components in nursing homes. Healthcare workers should also be able to reflect on their practices and those of others. Reflective practice that brings together theory and practice enable employees to reflect on their activities so that they participate in a continual learning process. By providing structured reflection in conjunction with formal training, health care personnel may benefit from their own professional experiences (Welsh *et al.*, 2010).

It is widely recognized that dementia is not known. However, many of our survey participants believed that a person with dementia could recover with time and become "normal again." The findings of earlier research by Pakistani adults in which participants thought the symptoms might improve or even heal with time. It also follows the Study by (Hillman & Latimer, 2017). That, although most healthcare workers in Pakistan nursing homes said that Alzheimer's disease couldn't be treated, about half stated that individuals with dementia might recover from Alzheimer's disease in rare instances. The belief that dementia can be treated may affect the organization of care. In virtually every dementia person the disease progresses, resulting in more dependence on all day-to-day activity and therefore increasing the requirement for these individuals to need daily care. This information may affect the arrangement of work in nursing homes (Cahill *et al.*, 2015).

4.2. Attitudes towards dementia

Although some of the participants in our research characterized dementia patients as not normal, generally they were favorable towards them. This is consistent with (Beer *et al.*, 2012) who stated the generally favorable attitude of Pakistan nursing students towards those with dementia. Pakistani health workers thought it would be worthwhile to deal with those who suffered from dementia but also said that they were not acquainted with dementia, were frustrated, and did not know how to assist individuals. There have been reports of many variables affecting people's attitudes about dementia (Parveen *et al.*, 2018). Previous research has shown that health students require extra knowledge and training on dementia. Although dementia education sessions were brief, they demonstrated a positive effect on pupils' attitudes and views.

All the respondents recommended future use of these types of information sessions towards dementia as they stated there is no facility or multimedia platform available in Pakistan for proper counselling and awareness of dementia disorder, Including this into the healthcare degree curricula will thus guarantee that students can grasp dementia fundamentally while laying the path for more advanced courses to assist individuals suffering from dementia. Compared to the UK government and health-related agencies incorporating into policies involved in awareness of dementia through proper sessions s Attitudes towards the disease cannot be altered without special training that focuses on decreasing stigma and ignorance about dementia. Dementia education in Malaysia should be integrated into national curricula to guarantee that people have sufficient knowledge and awareness regarding dementia and its intervention strategies (Isaac et al., 2017). As a low knowledge of dementia and negative

Attitudes and stigma against individuals suffering from dementia were identified in Malaysia. In the course of developing a plan, the Dementia Detectives Workshop provides the possibility of addressing such problems in the near term. In addition, a framework should be created for dementia education and training so that future healthcare workers get adequate training in support of individuals suffering from dementia. The current research has many limitations. First of all, all participants were recruited at a single institution from medical and pharmacy schools. We have gathered no information as to whether respondents got knowledge and awareness of dementia from their course work or not. The second questionnaire was completed within 24 hours of participating in the session. We don't know if the beneficial impacts of this research on attitudes and perceptions will be sustained over time. In this research, however, we sought to see if the workshop had any effect on these variables, rather than whether the prospective benefit was sustained (Schliemann et al., 2018).

Before obtaining schooling, with dementia. The effect of the dementia education sessions on students who study non-health-related topics should be examined in future studies. These pupils should be less exposed to dementia and may thus not exhibit neutral or favorable views about baseline dementia. In addition, young people should strive to develop the essential components of a workshop on dementia training and to create obstacles and facilitators for the delivery of dementia detectives. Similar studies in the United Kingdom have shown that students want to acquire some knowledge about dementia and feel the benefit from contact with people suffering from dementia (Smith et al., 2019). This is in line with the ideas of an approach to person-centered care. One of the cornerstones of personal care is that people are treated as an individual in accordance with their right to self-determination, mutual respect, and understanding (Halek et al., 2012). Understanding the significance of being close to the dementia person, being patient and tolerant, and accepting of the person are components of a person-centered approach to persons with dementia.

5. STRENGTHS AND RESTRICTIONS

This is cross-sectional research and no inferences can thus be made about the cause. While the measurements and issues affecting dementia attitudes are not verified, it is essential to highlight that the dementia-related stigma measures are not well established and validated. In addition, the questions presented offer ample scope for perspectives. Examined for analysis to be adequately sophisticated.

6. CONCLUSION

Across this review of attitudes towards dementia, we discovered that the respondents stressed their challenge and reported significant levels of negativity on a variety of problems. The research also revealed a lack of awareness about dementia risk factors. Since the basis of knowledge about dementia is rapidly developing, with the emphasis on the changeability of risk factors. More study is required to develop effective methods for increasing awareness of lay population dementia. Strategies to promote greater social inclusion should be a focus of research and policy for people with dementia and their caregivers.

7. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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