

Caregivers' Perception and Attitude towards Child Mental Health in Beni Suef Governorate, Egypt

Maha Emadeldin^{1*}, Khalid Imran Afzal^{2**}, Omaila Ezzat Mahmoud³, Mervat A. Rahma³, Manal Mohamed Anwar⁴, Reem Deif⁵, Hisham Salah¹, Osama Refaat⁶, Karam Radwan²

¹Psychiatry Department, Beni Suef University, Beni Suef, Egypt

²Department of Psychiatry and Behavioral Neuroscience, University of Chicago, IL, USA

³Faculty of Nursing, Beni-Suef University, Beni-Suef, Egypt

⁴Community and Public Health Department, Beni-Suef University, Beni-Suef, Egypt

⁵Department of Psychology, The American University in Cairo, Cairo, Egypt

⁶Department of Psychiatry, Cairo University, Cairo, Egypt

** Co-First Author

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*Corresponding author: Maha Emadeldin

Psychiatry Department, Beni Suef University, Beni Suef, Egypt

Abstract

Background: The World Health Organization recognizes the lack of public information about children and adolescents' mental health (CAMH) disorders as a barrier to seeking help. This study assessed the current knowledge and attitudes of caregivers about CAMH problems in Egypt. **Methods:** A total of 1937 caregivers attending primary health care centers in Beni Suef, Egypt, were surveyed using the Arabic version of the University of Chicago Behavior Health Questionnaire (UCBHQ). **Results:** We found a statistical significance of positive attitude towards CAMH in parents'/caregivers' who were females, relatively young, or had a higher educational degree. Due to the influence of media and negative publicity, caregivers were wary of the adverse effects of psychoactive medications and MH treatment. We also identified participants who had previously attended MH workshops or had a family member with mental illness were skeptical about existing MH services. Cultural background and spirituality were not a barrier to seeking MH care in this study. **Conclusion:** Findings highlight the need to utilize social media, television ad campaigns, and print fora to raise awareness about stigma, etiology of MH problems, and evidence-based treatments targeting gender and age-specific population.

Keywords: children, adolescents, mental health, etiology, treatment, stigma.

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1. INTRODUCTION

Child and Adolescent Mental health (CAMH) is poised to become one of the most significant public health challenges of the twenty-first century [Baranne & Falissard, 2018]. The worldwide prevalence of CAMH is around 13% [Jenny Lou *et al.*, 2022], and the World Health Organization (WHO) projects CAMH conditions accounting for 16% of the global burden of disease and injury in 10-19 years-old [Adolescent mental health, 2019; Vigo *et al.*, 2016; S. M. Kaku *et al.*, 2022; Racine *et al.*, 2021]. If left untreated, these conditions could profoundly influence a child's development, educational attainment, the potential to live a fulfilling and productive life and affect the long-term prognosis [Bronsard *et al.*, 2016]. The range of barriers to CAMH includes delayed identification due to a lack of awareness, stigma against MH illnesses, a lack of availability of MH resources, and limited access to MH

care [Thomas, 2019; Rickwood *et al.*, 2007; Sowmyashree Mayur Kaku *et al.*, 2022].

In the Low and Middle-Income Countries (LMIC), a complex interaction of social norms, cultural values, and religious beliefs could hinder CAMH care. Previous small-scale studies have attempted to explore the role of these factors in understanding the public perception about nature and the causation of mental illness and how they affect treatment options [Yeh *et al.*, 2004; Patel *et al.*, 1997; Abdool Karim SS, 1994; Natrass, 2005]. Abera and colleagues highlight the parental perception about the causes of CAMH problems could potentially impact their ability to recognize different etiologies and influence their preferences for treatment in Ethiopia [Abera *et al.*, 2015]. Seeking help from traditional healers was reported among Middle Eastern societies, where such healers still play a

significant role in treating sufferers [Abera *et al.*, 2015]. Eapen and Ghubash explored the effect of parental education on treatment-seeking behavior in the United Arab Emirates (U.A.E.). They found that most educated people prefer to seek help from MH professionals rather than going to a spiritual healer [Eapen & Ghubash, 2004].

The current estimate in the Arab world suggests that more than 65% of the population is under 30 years old, and the MH resources to accommodate the ever-increasing demand and need are scarce [Maalouf *et al.*, 2019]. Egypt is the most populous Arab country with a strategic geographic location [Charles Gordon Smith, 2019]. To the best of our knowledge, our study is the first-ever large-scale study in Egypt to establish the knowledge and attitude of parents/caregivers (referred to as *parent/s* hereafter) towards CAMH. In addition to the previous studies and new studies [Azzam *et al.*, 2021; Ahmed Arafa *et al.*, 2019], which explored the role of education, the gender of the parent, cultural values, and religious beliefs in the choice of MH treatment, our study investigated the influence of media and negative publicity as potential barriers towards seeking MH treatment, as well.

2. MATERIALS AND METHODS

The study was conducted from January to June 2014 in the Beni Suef governorate, Egypt. The total population estimate was around 3 million, with two-thirds living in rural areas [*Population Situation Analysis, Egypt*, 2016]. There are 24 primary health care centers, nine general and two specialized hospitals, and one psychiatric inpatient facility. Beni Suef University (BSU) Teaching Hospital and Ministry of Health Psychiatric Hospital offers CAMH psychiatry services in addition to private CAMH clinics [*Population Situation Analysis, Egypt*, 2016]. The ethical committee of the Faculty of Medicine at BSU approved the study.

2.1 Data Sites

We partnered with the administration of Beni Suef governorate to randomly select one Primary Healthcare Center in each of the seven districts to be the sites of the study.

2.2 Subjects

We approached 2338 parents with children aged from 1 to 18 years attending the Primary Healthcare Centers in various districts. A total of 1937 or 84% provided consent to participate in the study.

2.3 Measures

We used the Arabic version of the University of Chicago Parent/Caregiver Behavioral Health Questionnaire (UCBHQ) in this study. The co-first author (KA) and the senior author (KR) created UCBHQ for a project to assess the knowledge and attitude of Muslim parents towards CAMH in Chicago, USA [Afzal, 2018, 2017]. UCBHQ was translated into Arabic

and back-translated in English by two professional Arabic language experts. Native Egyptian Arabic language experts modified the original questionnaire to accommodate the regional Egyptian language differences. Two professional native Arabic speakers completed the forward and back-translation of the modified UCBHQ. The first portion of the questionnaire consisted of demographic questions, including the parental age, gender, education level, ages of children, profession, etc. The behavioral health questions assessed the understanding of MH terms such as depression, anxiety, ADHD, Autism, etc.; beliefs about the etiology of MH problems; perceived barriers to receiving MH care for their children; the availability and access to MH care; and previous experience in MH. Participants rated their responses on a 5-point Likert scale ranging from 1 to 5 or “yes/no” format (see Table 1). The survey was anonymous, with an estimated time of 15 min for completion.

2.4 Data Analyses

Descriptive statistics were generated in terms of mean scores, standard deviations (SD), medians, ranges, frequencies, and percentages as appropriate. Multivariate generalized linear models (GLM) were used to test for the preferential effect of the independent variable(s) on the study outcomes, and a p-value of less than 0.05 was considered to be statistically significant. We used IBM SPSS (IBM Corp., USA) release 22 for Microsoft Windows for statistical analyses.

3. RESULTS

3.1. Demographic Data and Descriptive Statistics

The mean age of parents was 34.7 ± 14.1 years, 65.5% of participants were mothers, 66.2% lived in rural areas. Only 19% held a university degree. There were 1-9 children per household (Table 2).

3.2. Attitudes towards Etiology (UCBHQ)

Results show that only 25.5% believed “CAMH problems were caused by chemical imbalances in the brain” and that 30% attributed it to “nutritional deficiency such as vitamins, proteins, and milk.” Although almost half the respondents agreed that depression and intellectual disability were “medical conditions like hypertension and diabetes,” 70% disagreed with the statement that “ADHD is a medical condition.” Forty three percent were concerned about the use medications because of perceived adverse effects “brain damage, and potential addiction,” and 58.9% preferred natural remedies, “dietary adjustments and herbal medicines.” Around fifty percent preferred spiritual healing like “praying and reading Quranic and Biblical texts.” Sixty percent of the participants considered seeking help for CAMH problems and “did not report any cultural or religious concerns in seeking MH care.” The majority (69.4%) were not sure of where to seek help (Table 3).

Table 1							
University of Chicago Behavioral Health Questionnaire (UCBHQ) Sample questions							
Behavioral or mental health conditions are caused by chemical imbalances in the brain:							
Strongly agree	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	Strongly disagree	
Behavioral or mental health conditions are caused by nutritional deficiencies:							
Strongly agree	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	Strongly disagree	
If yes, which nutritional deficiencies? _____							
Behavioral or mental health conditions are present only in Western cultures and not in Eastern cultures:							
Strongly agree	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	Strongly disagree	
Behavioral issues in children are part of mental health:							
Strongly agree	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	Strongly disagree	
Behavioral issues in teenagers are part of mental health:							
Strongly agree	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	Strongly disagree	
Problems in mathematics, reading or writing are considered to be a part of behavior or mental health in children:							
Strongly agree	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	Strongly disagree	
I am comfortable in seeking help for behavioral or mental health needs of children:						<input type="checkbox"/> Yes	<input type="checkbox"/> No
My SPIRITUAL/RELIGIOUS beliefs allow me to seek help for behavioral or mental health needs of my child:						<input type="checkbox"/> Yes	<input type="checkbox"/> No
My CULTURAL beliefs allow me to seek help for behavioral or mental health needs of my child:						<input type="checkbox"/> Yes	<input type="checkbox"/> No

Table 2			
Demographic characteristics of participants			
		Participants	%age
Gender	Male	595	31
	Female	1324	69
Relationship	Father	554	28.8
	Mother	1258	65.5
	Others	109	5.7
Residency	Rural	1277	66.2
	Urban	652	33.8
Education	Illiterate	97	5.1
	Primary (6 years)	209	11.1
	Preparatory (3 years)	276	14.6
	Secondary (3 years)	914	48.5
	Post secondary or University	358	19

UCBHQ questions	Disagree (N)	%age	Neutral (N)	%age	Agree (N)	%age
Behavioral or MH problems are caused by chemical imbalances in the brain	813	44.20%	558	30.30%	469	25.50%
Behavioral or MH problems are caused by nutritional deficiencies	765	40.30%	561	29%	569	30.10%
Depression is a medical illness	694	36.30%	359	18.50%	886	45%
Anxiety is a medical illness	781	40.90%	371	19.40%	757	39.60%
ADHD is a medical illness	891	46.50%	411	21.40%	615	32.10%
Autism is a medical illness	863	45%	381	19.70%	671	35%
Intellectual disability is a medical illness	745	38.80%	286	14.90%	886	46.20%
Learning problems is a medical illness	935	49%	403	20.80%	572	30%
Concern about use of medications for behavioral or MH in children due negative publicity	767	39.60%	434	22.80%	704	36.90%
Concern about use of medications for behavioral or MH in children due risks & side effects	585	30.70%	500	25.80%	821	43.10%
I prefer natural remedies over medication to help children with behavioral or MH needs	427	22.60%	352	18.20%	1114	58.90%
I prefer spiritual healing instead of medication to help children with behavioral or MH needs	568	29.90%	444	22.90%	893	46.80%
I do not have a problem to seek help for behavioral / MH needs of children and adolescents	463	24.30%	325	17%	1124	58.80%
Seeking help for behavioral / MH problems is cultural stigma	1002	52.20%	308	16.10%	609	31.80%
My spiritual/religious beliefs allow me to seek help for behavioral or MH needs of my child	292	15.30%	355	18.60%	1158	66%
My cultural beliefs allow me to seek help for behavioral or MH needs of my child	525	27.10%	321	16.80%	1064	55.80%

3.3. Pearson Correlations

3.3.1. Age of Caregivers

Pearson's correlations suggest older-aged parents were less likely to believe that "MH problems caused by chemical imbalance" ($p=0.001$), "behavioral issues in C&A are part of MH problems" ($p<0.001$), "ADHD ($p=0.04$), Autism ($p<0.001$), and intellectual disability ($p<0.001$) are medical illnesses", and "children can have anxiety" ($p=0.01$). They were also less likely to believe medications ($p=0.002$) and psychotherapy ($p=0.009$) could change brain chemistry.

3.3.2. Number of Children

Participants with more than one child were less likely to believe MH problems to be "caused by brain chemical imbalances: ($p<0.001$). They did not think that "CAMH problems could be treated with medications" ($p=0.04$) or "psychotherapy" ($p<0.001$). They did not consider "depression" ($p=0.001$), "anxiety, ADHD, Autism, intellectual disability" ($p<0.001$) and "learning problems" ($p=0.001$) as medical illnesses. A correlation was established between the number of children and parental reluctance to seek behavioral or MH needs for

children and adolescents ($p=0.03$). They “preferred natural remedies rather than medication” ($p=0.03$).

3.3.3. Education

Higher educational level was positively correlated with a contemporary understanding of CAMH problems. For example, chemical imbalance cause MH problems ($p < 0.001$), “Behavioral issues in C&A are part of MH problems” ($p < 0.001$), “Depression, anxiety, ADHD, autism” ($p < 0.001$), “Intellectual disability and learning problems are medical illnesses” ($p=.01$), and “Children can have depression” ($p < 0.001$). Participants with a higher educational degree were likely to believe that MH problems could be treated ($p=.03$), by “psychotherapy” ($p < 0.001$), and “medication” ($p < 0.001$) and that “psychotherapy could change the brain chemistry” ($p=.01$). Education was negatively correlated with the “belief that seeking help for MH problems caused cultural stigma” ($p < 0.001$). The participants with higher education degrees noted to have “spiritual and religious beliefs allowing them to seek help for MH problems” ($p < 0.001$). Some of the other positive correlation for participants with higher education were “beliefs about the efficacy of treatment using medication and psychotherapy” ($p < 0.001$), and more “tolerant social or religious beliefs toward seeking MH care for children” ($p < 0.001$). However, a higher educational level was shown to be related to statistically significant “concern about the risk and adverse effects of medication” ($p < 0.001$), as well.

3.4. Factors Affecting Knowledge and Attitude towards CAMH Problems

3.4.1. Having Someone in My Family (Adult or Child/Adolescent) With MH Problems

Results show that nineteen percent (364 participants) had someone in the family (adult or C & A) with MH problems. Multivariate GLM revealed that having someone in the family with MH problems could significantly predict “less acceptance to seek treatment” ($f(1)=4.5, p=.03$), “less belief MH problems could be treated” ($f(1)=6.8, p=.009$) and “more concern about negative publicity of medication” ($f(1)=10.7, p=.001$).

3.4.2. Attending MH Workshops/Lectures

A small portion of the sample, 13% (249), had attended workshops or lectures on MH issues in the past. Multivariate GLM revealed that attending a workshop or a lecture was positively correlated with the knowledge and attitude about CAMH. For example, “MH problems are caused by chemical imbalance” ($f(1)=4.8, p=.02$), “Depression is a medical illness” ($f(1)=8.6, p=.003$), and “Learning problems is a medical illness” ($f(1)=5.5, p=.01$). Attendees of previous MH workshops or lectures had less “preference of use of spiritual healing for MH problems” ($f(1)=4.5, p=.03$). Such participants were more likely to believe that “MH problems were caused by nutritional deficiencies” ($f(1)=16.5, p=.000$). They had more concern about “the use of medication due to

negative publicity” ($f(1)=8, p=.005$) and “the risk and adverse effects” ($f(4)=5.9, p=.015$).

3.4.3. Having Someone in the Family with Mental Health Problems and Attending MH Workshop/Lectures

Parents having someone in the family with MH problems or who had participated in MH workshops/lectures were significantly less likely to believe that a chemical imbalance caused MH problems in the brain ($f(1)=12.8, p=.000$). Those participants felt that “MH problems could be treated by medication” ($f(1)=9.5, p=.002$) and that “medication could change the brain” ($f(1)=14.8, p=.000$). They were also more likely to believe that “psychotherapy could change the brain” ($f(1)=4.8, p=.02$) and that “depression ($f(1)=8.6, p=.005$), anxiety ($f(1)=0.6, p=.000$), and Autism ($f(1)=5.7, p=.04$) were medical illnesses.”

3.4.4. Type of Caregiver

Multivariate GLM revealed that the gender of caregiver (father vs. mother) significantly influenced knowledge and attitude toward CAMH problems. As compared to fathers, mothers were likely to believe that “behavioral issues in children to be part of MH problems” ($f(1)=5.7, p=.03$), “adolescents could have depression” ($f(1)=3.7, p=.02$), or “anxiety” ($f(1)=3.4, p=.03$). Mothers considered “intellectual disability” ($f(1)=7.3, p=.001$) and “learning problems were medical illnesses” ($f(2)=3.2, p=.04$). The findings suggest that mothers were more likely to believe that “MH problems could be treated” ($f(1)=3.9, p=.01$), “MH problems could be treated by medication” ($f(1)=9.2, p=.0001$) and “psychotherapy” ($f(1)=3.5, p=.02$). Moreover, mothers were more likely to state that their “religious beliefs allowed them to seek psychiatric help for the CAMH needs.” ($f(1)=3.8, p=.02$).

4. DISCUSSION

Our study aimed to establish the baseline knowledge and attitudes of Egyptian parents towards CAMH in the Beni Suef Governate. We explored how the gender and age of the parent, level of education, cultural values, and religious beliefs affected their choice of MH treatment and investigated the influence of media and negative publicity as potential barriers towards seeking MH treatment. The significance of this study is based on the assumption that parental perception of CAMH problems is directly linked with their chances of accessing such services [Zahner *et al.*, 1992]. It was the first and the largest study of its kind conducted in Egypt to influence both clinical and MH policy decision making in the region.

In our study, inadequate knowledge about the etiology of CAMH predicted negative attitudes towards help-seeking behavior. The participants in the older age-group seemed to be accustomed to the traditional or culturally-influenced views of mental illness and were less favorable to contemporary MH treatment. Our

finding could reflect the changes in public awareness due to improved MH literacy over the past decades that influenced the younger generation more than the older.

As shown in other studies [Afzal, 2017; Ewalds-Kvist *et al.*, 2012], the female gender had a better attitude and knowledge towards CAMH than their male counterparts in our research. Globally, mothers seem to be more involved in parenting than fathers, including taking children for healthcare appointments. Such opportunities allow mothers to interact with other parents in the waiting rooms, to discuss their concerns with clinical staff, and possibly access MH awareness literature. Ewalds-Kvist *et al.* found that female respondents in their study were open-minded and tended to be more empathetic than men toward the mentally ill [Ewalds-Kvist *et al.*, 2012]. Our results on gender and age difference suggest that the success of future MH literacy interventions might depend on targeting the male gender and the older generation, along with continuing to involve the young and females. Like previous studies, we showed a direct correlation of education level to a positive attitude towards MH issues (13), thus emphasizing the role of psychoeducation to improve both knowledge and adherence to treatment [Alosaimi *et al.*, 2014].

Previous exposure to MH disorders or psychoeducational workshops presented some unexpected findings in our sample. Mental illness in the family predicted an unsatisfaction with MH services due to the possible lack or inadequate availability of MH services, especially in rural areas. Despite the recent improvements in MH service delivery in Egypt, there still seems to be a significant gap in resource distribution between urban vs. rural regions [Gaber, 2019]. Attending a previous MH workshop or a lecture did not indicate a better understanding of CAMH problems in our data. We argue that trained professionals should organize psychoeducational programs using the evidence-based information delivered with an appropriate instructive methodology and utilizing available media options including remote learning via web-based models.

Previous research suggests that individuals from different cultural backgrounds attribute MH issues to various factors such as family conflicts [Douglas & Fujimoto, 1995], spiritual [Selekman, 2012], supernatural [Khan *et al.*, 2011; Pfeifer, 1994], as a test or a form of punishment from God [Youssef & Deane, 2006]. Individuals who believed in spiritual or supernatural attributes to mental illness preferred spiritual healing or social support rather than MH care [Kar, 2008]. It is also noted that when MH issues are attributed to external factors beyond an individual's control, the general attitude is less negative than when the individual is believed to have MH issues due to inherent traits [Corrigan *et al.*, 2001]. Thus, seeking spiritual help might be a means of avoiding stigma in Arab culture [Okasha & Karam, 1998]. Belief in God as

a "Healer" is comforting for families [Rakhawy M.Y., 2010]. As previous studies did not find any professional interaction between medical and traditional healers [Okasha *et al.*, 2012], El-Eslam recommended such educational exchanges to promote a contemporary understanding of mental illness [El-Islam, 2005].

Our study demonstrated a low tendency of parents to regard Attention/Deficit Hyperactivity Disorder (ADHD), learning disorders, and Autism as *medical conditions*. We assume that a lack of culturally influenced symptomatic explanations of these conditions led parents to consider these conditions as "behavioral" and not "medical." Further, the behavioral description of CAMH problems seemed to carry less stigma as compared to illnesses with a medical connotation [Abbo *et al.*, 2008].

Although stigma may subtly become evident in the denial of MH needs and resistance to seek help [Owens *et al.*, 2002; Fox *et al.*, 2018; Choudhry *et al.*, 2016], the majority of our respondents did not support such stigmatized views of MH issues. Education level, in our study, was linked to an accurate view of MH issues; however, it seemed to intensify a distorted fear-based view about medication treatment due to the influence of media and negative publicity such as dependence and an exaggerated adverse effects profile. Such fears might affect the participants' tendency to seek help and indicate that less stigma does not necessarily mean positive attitudes towards MH.

Our data suggest that most respondents in our study never attended psychoeducational workshops in the past, and more than half of them did not know where to seek help if needed [Angermeyer & Dietrich, 2006]. This finding is likely to reflect the gap of awareness of CAMH needs in primary healthcare settings. Eapen *et al.*, confirmed that primary health care physicians are highly likely to miss psychiatric indications in children [Eapen *et al.*, 2004]. Another Egyptian study discovered a mean duration of illness of 3.4 ± 3.1 years in children before their first psychiatric consultation, again highlighting the lack of progress in bridging the gap between MH knowledge in primary care settings [Hussein *et al.*, 2012]. Angermeyer and Dietrich also found that MH is often neglected in primary care settings. The increasing need and continually limited MH resources, especially in LMIC's, including Egypt, necessitate the integration of MH services in primary care settings [Vigo *et al.*, 2016; A. Arafa *et al.*, 2019].

The limitations of our study include providing a cross-sectional descriptive analysis of a small subset of the population. The results might not be generalizable to urban settings with more awareness and access to care. The data were collected about five years ago; however, the slow progress in MH literacy and the lack of publications on the topic suggest its continued relevance

today. Finally, large scale studies in urban and rural settings are needed to expand and replicate the results.

5. CONCLUSION

This study found age, gender, education level, previous exposure to MH, media influence, and negative publicity as significant factors affecting parents' attitude towards seeking CAMH care in Egypt. We did not find religious or spiritual beliefs affecting MH stigma in our sample. Our findings support educational interventions aiming to improve MH literacy targeting gender and age-specific population in culturally sensitive awareness campaigns based on the identified predictors. Additionally, utilizing primary sources of public information such as television ad campaigns, social media, print media, and word of mouth about CAMH improve the credibility and reliability of existing services.

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