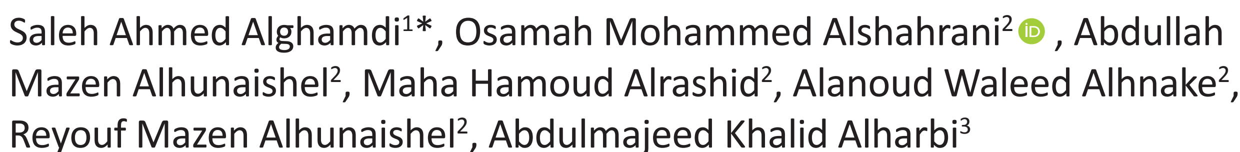
ORIGINAL ARTICLE

Knowledge about the National Center for Mental Health promotion hotline among the adult population in Saudi Arabia



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ABSTRACT

Background: The National Center for Mental Health Promotion (NCMHP) introduced a new hotline in 2013. The center receives a variety of psychological consultations through the number 920033360, which experienced mental health professionals answer. The present study aims at assessing the knowledge about the NCMHP hotline among the adult population in Saudi Arabia.

Methods: This cross-sectional study design was conducted among the Saudi adult population from August 2021 to September 2021. A pre-validated questionnaire was distributed among the study population using an online platform. The questionnaire included a set of questions about the participant's socio-demographic characteristics, previous history of mental illness, family history of mental illness, and an assessment of their knowledge regarding the NCMHP. Data were tabulated in Google forms, and all statistical analyses were performed using Statistical Package for the Statistical Package for the Social Sciences version 26.

Results: 2,910 respondents replied to the questionnaire (49.2% male to 50.8% female). A previous history of mental illness was found among 13.1% and 23.2% of the respondents, respectively. The most common participating age group was 18-30 years old. Of the respondents, 18.7% were aware of the NCMHP hotline service. In univariate analysis, the region of residence and previous and family history of mental illness were the main factors associated with participants' knowledge about the NCMHP hotline service. In multivariate estimates, previous and family history of mental illness was determined as the significant independent predictors of the NCMHP hotline service knowledge.

Conclusion: The Saudi population had limited knowledge about the NCMHP hotline service. Better knowledge was demonstrated by those with previous or family histories of mental illness.

Keywords: Mental health promotion, Saudi Arabia, mental health, mental illness, hotline.

Introduction

The concept of mental health can be traced back well before the 20th century. However, mental health was not acknowledged as an independent field or discipline until 1946, when the International Health Conference members established the Mental Health Organization in London [1]. Early mental health descriptions define it as an examination of the intellect and passion for investigating their impact on health [2]. The national committees conducted supported research to investigate the cause, diagnosis, and treatment of mental disorders by offering Training to social workers who deal with the mentally ill [3]. The World Health Organization (WHO) asserts that one of the functions of the National Center for Mental Health (NCMH) is to carry out a training

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program to develop primary care physicians' ability to detect and manage mental disorders [4]. In the 1920s, the United States NCMH imposed a number of model commitment laws to organize its work, and it was the first community to give importance to child guidance clinics [5]. In 1971, Qatar established a psychological care service for the first time in the Gulf states [6]. The other model was in the United Arab Emirates (UAE), one of the countries that worked on a national project related to psychological care and the hotline [7,8]. In 2006, the Kingdom of Saudi Arabia (KSA) established a national policy for mental health, which included programs for individuals suffering from drug and alcohol addiction, the elderly, adolescents, and children.

In addition, hotline services provide medical consultations around the clock [9]. In 2013, systematic research relating to the mental health care system in the KSA was presented. It was in agreement with an evaluation by the WHO and included previous data from their Ministry of Health over successive years from 2009 to 2010. At the time, this indicated that the KSA had made a number of achievements in this regard, including allocating a large amount of their total spending to mental health care [10]. The National Center for Mental Health Promotion (NCMHP) in Saudi Arabia is interested in four important areas: the execution of mental health policies, plans, and programs. The second area relates to implementing mental health service regulations and practices, and the third involves the administration of mental health information systems. Last, it involves managing the programs that target mental health promotion and mental health prevention [11]. The NCMH in Saudi Arabia is responsible for endorsing mental health programs, correcting the misconceptions that surround mental health, and combining the efforts of the government and non-governmental institutions regarding mental health [12]. The NCMH in Saudi Arabia helps people adjust and find the appropriate care they need with a licensed mental health care provider [13]. Saudi Arabia has specialized in a hotline set up to receive inquiries and complaints regarding the health care service and will focus primarily on elderly people [14]. Saudi Arabia was eager to develop a framework compatible with the community and its cultural and religious values. Moreover, by integrating mental health services with public services, they demonstrated the undesirable impact of drug abuse and smoking and the negative effects they cause. [9,15]. The mental health promotion hotline study contributes to several points. Youth organizations work collaboratively in society. In addition, it is necessary to know the true capabilities of these young people and work to strengthen their strength and direct them in the right way.

Moreover, work is done to help them adapt to live in different environments with different circumstances in their prosperity or adversity. To promote mental health lies in several main points, which are as follows: Develop national programs related to drug abuse that must be imposed, in addition to establishing effective mechanisms to implement these programs. In addition, work must be done on psychological and social awareness related to showing the extent of addiction damages of all kinds. Furthermore, providing the appropriate services to those in need at the right time. Moreover, work on educating young people in schools through prevention programs and instructions. This study has several important objectives: the first goal is that every person, regardless of who suffers from any mental illness, has the full right to receive health care, periodic follow-up, and necessary treatment. The second of these goals is that every person who has any mental illness has the full right not to be subjected to economic and human exploitation or any exploitation, physical harm, or humiliation in all its forms. Also, there is not supposed to be any racial discrimination based on mental illness.

Subjects and Methods

This study was a descriptive cross-sectional questionnaire-based study design. It was conducted in the KSA from August 2021 to September 2021. Adults were randomly selected and asked to take part in an online-based survey. The mid-year population in Saudi Arabia in 2020 was used for sample size calculation, and the values were placed in the level of precision formula that yielded a sample size of 385 [16]. The total number of participants in this study was 2,910. All participants received an informational online web page explaining the study's purpose and requested to provide informed consent before the online questionnaire. Response repetition was avoided by linking every survey answer with an Internet protocol. Male and female adults aged 18 years and above and who could read and write in Arabic (the official language of Saudi Arabia) were included in the study. Adults outside of Saudi Arabia and those under 18 years of age were excluded from the study. A pre-validated questionnaire was used to collect the data [17]. The participants were asked 11 questions, 7 of which related to socio-demographic characteristics. The four remaining questions were to establish their knowledge regarding the NCMHP hotline.

A pilot study was conducted to ensure that the questions were straightforward and understandable. Data were collected, cleaned, and coded in Microsoft Excel software, then transported to statistical software Statistical Package for the Statistical Package for the Social Sciences version 26 for necessary data analyses. All statistical analysis was carried out using two-tailed tests. *p*-value less than or equal to 0.05 was considered to be statistically significant. Descriptive statistics, including frequencies and percentages, were used to describe the frequency of each categorical variable item. A chi-square test was used to establish the association between participants' socio-demographic characteristics and their knowledge about the NCMHP hotline. A subsequent multivariate regression table was performed to determine the significant independent predictor associated with their knowledge about the NCMHP hotline.

***Table 1.** Participants' socio-demographic characteristics (n = 2,910).*

Study variables	N (%)
Age in years	
18-30 years	1,517 (52.1)
31-40 years	563 (19.3)
41-50 years	486 (16.7)
51-60 years	259 (8.9)
>60 years	85 (2.9)
Gender	
Male	1,431 (49.2)
Female	1,479 (50.8)
Level of education	
Less than high school	141 (4.8)
High school	740 (25.4)
Diploma	317 (10.9)
Bachelor	1,541 (53.0)
Higher education	171 (5.9)
Region of residence	
Northern region	755 (25.9)
Southern region	355 (12.2)
Central region	961 (33.0)
Western region	273 (9.4)
Eastern region	566 (19.5)
Marital status	
Single	1,385 (47.6)
Married	1,397 (48.0)
Divorced	92 (3.2)
Widowed	36 (1.2)
Have children?	
Yes	1,327 (45.6)
No	1,583 (54.4)
Previous history of mental illness?	
Yes	381 (13.1)
No	2,529 (86.9)
Family history of mental illness?	
Yes	674 (23.2)
No	2,236 (76.8)

[a] Variable with multiple response answers.

Results

In total, 2,910 respondents met the inclusion criteria (male: 49.2% *vs.* female: 50.8%). Table 1 presents the participants' socio-demographic characteristics. The most common participating age group was 18-30 years old (52.1%), with more than half having a bachelor's degree (53%). Participants in the Central region constituted 33%, while those living in the Northern region constituted 25.9%. Furthermore, 48% of the respondents were married, while 47.6% were single. The proportion of respondents who were having children was 45.6%, while the previous history of mental illness and family history of mental illness constituted 13.1% and 23.2%, respectively. The assessment of knowledge regarding the NCMHP is given in Table 2. It can be observed that the prevalence of participants who previously contacted the NCMHP hotline was only 5%. We further observed that 14.5% of respondents had referred the NCMHP hotline to other people. The proportion of respondents who knew about the NCHMP hotline service was 18.7%. In addition, 63.5% were aware that the NCMHP hotline offered mental health constitutions.

***Table 2**. Assessment of knowledge regarding NCMHP (n = 2,910).*

Knowledge statement	N (%)
Have you ever contacted the NCMHP hotline?	
Yes	145 (5.0)
No	2,765 (95.0)
Have you ever advised someone to contact the NCMHP hotline?	
Yes	423 (14.5)
No	1,252 (43.0)
I did not know that I could communicate with them	1,235 (42.4)
Do you know about the hotline service of the NCMHP?	
Yes	544 (18.7)
No	2,366 (81.3)
What does the NCMHP hotline offer? a	
Mental health constitutions	1,849 (63.5)
Service	848 (29.1)
Inquiries	820 (28.2)
Appointments	736 (25.3)
Complaints	725 (24.9)
I do not know	772 (73.5)

[a] Variable with multiple response answers.

When measuring the effect of knowing about the NCMHP hotline concerning the socio-demographic characteristics of participants, it was found that the prevalence of respondents with knowledge about the NCMHP was more common among those living in the Central region ($p = 0.005$). On the other hand, respondents with no previous history of mental illness ($p < 0.001$) and those without a family history of mental illness ($p < 0.001$) were significantly more unaware of the NCMHP (Table 3). In a multivariate regression model, the likelihood of respondents with a previous history of mental illness knowing about the NCMHP hotline was twice as high as those without any previous history of mental illness [adjusted odds ratio (AOR) = 2.087; 95% confidence interval (CI) = 1.591-2.739; $p < 0.001$]. We observed that respondents with a family history of mental illness were 1.4 times more likely to know about the NCMHP hotline (AOR = 1.424; 95% CI=1.124-1.803; $p = 0.003$). On the other hand, the residence region did not particularly influence the knowledge about the NCMHP hotline after adjustments to the regression model ($p > 0.05$) (Table 4).

Discussion

This study was carried out to determine the level of awareness of the Saudi adult population regarding the NCMHP hotline service. To the best of authors' knowledge, this is the first study conducted in Saudi

Table 3. *Relationship between the knowledge about the NCMHP hotline, and the socio-demographic characteristics of participants (n = 2,910).*

Factor	Knowledge		p-value *
	With knowledge N (%) (n = 544)	Without knowledge N (%) (n = 2,366)	
Age in years			
18-30 years	291 (53.5)	1,226 (51.8)	0.481
>30 years	253 (46.5)	1,140 (48.2)	
Gender			
Male	277 (50.9)	1,154 (48.8)	0.367
Female	267 (49.1)	1,212 (51.2)	
Level of education			
Diploma or below	227 (41.7)	971 (41.0)	0.769
Bachelor or higher	317 (58.3)	1,395 (59.0)	
Region of residence			
Northern region	112 (20.6)	643 7.2)	0.005**
Southern region	79 (14.5)	276 (11.7)	
Central region	204 (37.5)	757 (32.0)	
Western region	47 (8.6)	226 (9.6)	
Eastern region	102 (18.8)	464 (19.6)	
Marital status			
Unmarried	293 (53.9)	1,220 (51.6)	0.334
Married	251 (46.1)	1,146 (48.4)	
Having children			
Yes	248 (45.6)	1,079 (45.6)	0.995
No	296 (54.4)	1,287 (54.4)	
Previous history of mental illness			
Yes	129 (23.7)	252 (10.7)	<0.001 **
No	415 (76.3)	2,114 (89.3)	
Family history of mental illness			
Yes	183 (33.6)	491 (20.8)	<0.001 **
No	361 (66.4)	1,875 (79.2)	

**p*-value has been calculated using the chi-square test.

** Significant at $p < 0.05$ level.

Table 4. *Multivariate regression analysis to determine the independent significant factor associated with knowledge about the NCMHP hotline (n = 2,910).*

Factor	AOR	95% CI	*p*-value
Region of residence			
Northern region	Ref		
Southern region	1.174	0.873-1.578	0.289
Central region	0.830	0.595-1.159	0.275
Western region	0.957	0.729-1.254	0.748
Eastern region	1.238	0.840-1.825	0.281
Previous history of mental illness			
Yes	2.087	1.591-2.739	<0.001 **
No	Ref		
Family history of mental illness			
Yes	1.424	1.124-1.803	0.003**
No	Ref		

Adjusted Odds Ratio (AOR); Confidence Interval (CI).
** Significant at $p < 0.05$ level.

Arabia to measure the general public's awareness of the hotline service provided by the NCMHP. The findings of this study indicated that the Saudi adult population was not aware of this service. Out of 2,910 respondents, 18.7% were aware that it existed; the remaining participants (81.3%) did not know of it at all. This finding is in agreement with the paper by Mahmoud [18]. Based on their responses, 87% of the general population were unaware that a psychiatric service existed in Saudi Arabia. However, in the United States, the authors reported that a large proportion of the respondents were uninformed about their mental health benefits, with one-quarter unsure if their health plan even included mental health service treatment. This lack of information may represent a barrier to seeking care through mental health care institutions [19]. Moreover, a negative attitude toward using mental health services had already been investigated in the publication. They explored people's attitudes toward help-seeking for mental illness in two population-based surveys in the United States and Canada [20]. Accordingly, they

discovered that negative attitudes toward mental health service use are prevalent in the community, contributing to higher treatment discontinuation. The authors surmised that government agencies in both countries should pay attention to people's perceptions of mental illness and could implement regionally appropriate education, screening, and intervention campaigns to overcome the attitudinal barriers to seeking mental health care treatment.

Previous and family history of mental illness contributed greatly to participants knowing about the hotline services of NCMHP, as they have a progressive attitude to seeking mental health care. In this study, 13.1% and 23.2% of the sample population reported having previous and family histories of mental illness, and they are notably more knowledgeable about the hotline service of NCMHP. Concerning this, Dawood and Modayfer [21] provided conflicting views, indicating that more than one-third of the participants (36.9%) had a family member diagnosed with mental illness. In comparison, around two-thirds (62.2%) knew someone diagnosed with a mental illness other than a family member. They further explained that individuals who received mental health treatment themselves or have a family member treated for mental health problems reported a more tolerant attitude toward community mental health care. Conversely, Mahmoud [18] noted that the groups, male gender age >20 years, not knowing whether a relative has mental illness, and not knowing about the services provided by psychiatric health services in the KSA, were considerably associated with unwillingness to seek psychiatric consultation when needed.

Relatively, it is important to emphasize that even though 63.5% were aware that the NCMHP hotline offered mental constitutions, the lack of information about the existence of NCMHP services is very obvious. Our results indicated that only 5% of the study participants had ever contacted the institution, and only 14.5% had recommended the hotline service to someone. This could be due to the fact that only a minority of participants reported mental health issues. Nevertheless, the NCMHP needs to increase its public presence. Since most people have Internet access, raising awareness through campaigns via social media could be the best way to reach out to the public. As such, it could bring about more awareness and eventually reduce the burden of mental illness in Saudi Arabia. There were few limitations for the study. First, an unavoidable selection bias existed in the web-based survey since it only included participants with internet access. Second, the results were based on a single survey involving the Saudi population. As a result, the generalization of the research study findings to other countries is limited. Finally, the researchers developed their own survey. To their knowledge, there is no well-established, standardized questionnaire covering this topic.

Conclusion

The Saudi population had limited knowledge about the NCMHP hotline service. A better comprehension of the services they provide was demonstrated by the individuals with personal experience or family history of mental illness. There is a definite need to increase the public's awareness of the NCMHP hotline service and the various resources. The NCMHP should make more effort to inform and educate people about their existence and let them know that they are within easy reach, specifically those suffering from mental disorders such as depression, anxiety, and stress. Public awareness about the services provided by NCMHP can lead to the early detection of mental disorders among the adult Saudi population.

List of Abbreviations

KSA Kingdom of Saudi Arabia
NCMH National Center for Mental Health
NCMHP National Center for Mental Health Promotion
SPSS Statistical Package for the Social Sciences
WHO World Health Organization

Conflict of interests

The authors declare that there is no conflict of interest regarding the publication of this article.

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None.

Consent to participate

Informed consent was obtained from all the participants.

Ethical approval

The present study was approved by the Ethics Committee of Imam Mohammad Ibn Saud Islamic University via reference number 102-2021, dated: 23/8/2021.

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