

Awareness and attitude toward antidepressants in the population of Riyadh, Saudi Arabia

Yasir Ibrahim Alsenaidi¹, Omar Dawas AIDawas², Abdullah Ahmad AlFihaid², Mohammed Sultan AlZimami², Rayan Faleh AlQahtani², Khalid A. Bin Abdulrahman³

(1) Department of Family Medicine, College of Medicine, Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh, Saudi Arabia

(2) College of Medicine, Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh, Saudi Arabia

(3) Department of Medical Education, College of Medicine, Imam Mohammad Ibn Saud Islamic University (IMSIU), Riyadh, Saudi Arabia

Corresponding author:

Khalid Bin Abdulrahman, MD

Professor of Family Medicine & Medical Education

College of Medicine, Imam Mohammad Ibn Saud Islamic University (IMSIU)

P.O. Box: 7544 – Othman Bin Affan Rd, Al-Nada, Riyadh 13317 – 4233, Saudi Arabia

Mobile: +966 505445384

Email: kab@imamu.edu.sa

Received: September 2022 Accepted: October 2022; Published: November 1, 2022.

Citation: Yasir Ibrahim Alsenaidi et al. Awareness and attitude toward antidepressants in the population of Riyadh, Saudi Arabia. World Family Medicine. 2022; 20(11): 6-14. DOI: 10.5742/MEWFM.2022.95251360

Abstract

Background: The growing prevalence of depression is a public health concern, and lack of awareness contributes to nonadherence to medications. Antidepressant awareness is, therefore, critical to the mental health and well-being of those with depression. The study aims to assess the awareness and attitude toward antidepressant drugs among the population in Riyadh.

Method: A design of the cross-sectional quantitative study was adopted. Online questionnaires were distributed to 668 participants, with data collected using non-probability convenience sampling. The questionnaire comprised demographic data for the patient and perspectives on the use of antidepressants, including gender, age, education status, awareness of antidepressants, and attitudes. Awareness and attitudes were concerned with different parameters related to the use of antidepressants.

Results: In this study, we collected data from 668 participants. Among the sample, 55.1 % of the participants were females, and 46.1 % were between 16 and 25 years old. In general, we found that 52.7 % of the participants had adequate knowledge, 44.6 % had inadequate knowledge, and 2.7 % did not know. The educational level of the participants

appeared to be the only factor that significantly affected the level of knowledge ($P=0.039$); the higher the educational level, the higher the level of knowledge. Furthermore, we found that most participants had a positive attitude towards antidepressant medications (80.5%), while 19.5 % had a negative attitude.

Conclusion: An inadequate knowledge of antidepressant medications was reported among residents of Riyadh. The need to increase awareness among this population is necessary.

Keywords: Antidepressant, Awareness, Depression, Public health, Saudi Arabia

Introduction

According to the World Health Organization (WHO), mental health is an indispensable aspect and a key predictor of general health (1). This condition has also contributed to physical and social disability and decreased productivity. According to the WHO, approximately 332 million people are affected by depression worldwide. Furthermore, it is expected that by 2030, depression will be the second leading cause of disability (2). Therefore, depression is considered a life-threatening condition that requires rapid management initiatives from public health stakeholders.

Similar to other countries, Saudi Arabia has registered an increase in mental health cases, with the progressive increase in the incidence of depression being of significant concern. In 2015, there were approximately 1.4 million cases of depression, representing 4.8% of the population (3). According to the Diagnostic and Statistical Manual (DSM) of mental disorders, depressive disorders include irritable mood, sadness, emptiness, and significant changes in cognition that affect an individual's physiological functioning (4). However, depressive symptoms are often undiagnosed. This has resulted in limited medical interventions being advanced in this regard. Therefore, understanding the dynamics of managing depressive symptoms will largely contribute to reducing the number of positive cases in the country.

According to the American Psychiatric Association (APA), depression is a serious but prevalent medical disease that affects an individual's behavior and thinking (5). The rationale for focusing on major depressive disorder is the negative implication for the patient, as it causes a feeling of sadness and loss of interest in previously enjoyed activities. A significant correlation between the two parameters was observed in a study in 2019 that determined the association between depression and multiple sclerosis. Furthermore, depression contributes to other comorbidities, including cardiovascular complications such as cardiac arrhythmias, chronic kidney disease, and hypertension. In contrast, depression is one of the most treatable mental disorders, with statistics indicating that 80-90% of all people with depression respond positively to treatment. Likewise, the majority of people obtain some form of relief from their depressive symptoms (6).

Since depression has emerged as a public health problem, the development of novel interventions has been the focus of current research, including antidepressants. Antidepressants are widely prescribed to manage major depressive disorders and enable users to resume daily activities (7). Typically, antidepressants function by increasing neurotransmitters, such as noradrenaline and serotonin, associated with emotions and mood (8). These neurotransmitters also affect pain signaling, relieving pain in the long term (9). However, efficacy depends on an individual's understanding and awareness of their condition and its management (10). This aspect may significantly impact the use of antidepressants, regardless of their availability.

Several studies have explored the influence of public perceptions of antidepressants in the successful management of depressive symptoms. A recent survey of the British female population observed that 79% of the respondents believed that antidepressants lead to

addiction, and 85% were against their use (11). A similar study conducted in Ankara, Turkey, among sixth-year students found that participants had fewer stigmatizing views toward antidepressants than first-year students (12). Although the importance of depression on general health and quality of life is well documented, there are shortcomings in the current literature regarding its use and awareness in Saudi Arabia. Therefore, the present study aimed to determine the awareness and attitude toward antidepressant drugs among the population of Riyadh. The study aims to determine people's attitudes and awareness about antidepressant medications in Riyadh.

Subjects and Methods

This quantitative cross-sectional study distributed a self-made online questionnaire to obtain participant data for analysis.

Participant Selection

The study was carried out in Riyadh, Saudi Arabia. The sample area is the country's capital and a significant financial hub. This location enabled a sample of a diverse urban population to be obtained, considering that Riyadh is centrally located with a population of approximately 7.3 million as of 2022.

In total, 668 participants were included, comprising 368 women and 300 men. The inclusion criteria for participation were adults, 16 years and older, and residents of Riyadh. Participants under 16 years of age and who lived outside the city were excluded from this study.

Variables

This study investigated categorical and continuous variables. This included gender, age, education status, awareness of antidepressants, and participants' attitudes. Awareness and attitudes were concerned with different parameters related to the use of antidepressants. All variables were independently evaluated. Participant education was considered a potential confounding variable when interpreting the results.

Participant responses were used to collect all data included in this study. Non-probability sampling enabled all variables to be controlled as a predefined proportion of male and female participants were included.

Bias

The current study used non-probability convenience sampling. This process has been attributed to the introduction of bias in scientific research (13). The practical application of this approach is that the respondents were selected from various groups, which makes them a good representation of the population. Furthermore, the questionnaire was designed to be short and precise, enhancing accessibility and understanding.

The sample size was calculated using the Raosoft online calculator at a 99% confidence interval (CI). The expected response for the outcome variables was maintained at 50%, implying that the minimum sample size for a 1% margin of error was estimated to be 664.

Quantitative variables

All quantitative variables were grouped according to the responses of the participants. This included the participants' demographics, with each response independently analyzed to obtain participant feedback. The demographic variables' minimum, maximum, and percentile values were calculated, and a frequency distribution analysis was conducted.

Statistical Analysis

Data collected from participants were entered, coded, and analyzed using SPSS, version 26. The output data for the categorical variables were frequency and percentages. These data were for continuous variables: mean, median, standard deviations (SD), and interquartile ranges. There were no missing data.

Results

In this study, we were able to collect data from 668 participants. Among the sample, 55.1 % of the participants were women (N = 368), 46.1 % were aged between 16 and 25 years old (N=308), and 30.5 % were between 26 and 35 years old (N=204).

Taking into account the educational level of the participants, we found that 43.6 % of the participants reported having a bachelor's degree. Compared to 2004, 41.0% reported having a high school graduate or lower educational level (Table 1).

Taking into account the knowledge about depression, the results of the questions are reported in Table 2. The results showed that 38.2 % of the participants were unsure if depression could go away independently; however, 32.2 % disagreed with this statement, and 8.2 % did not know. Furthermore, participants in this study were uncertain whether antidepressants are addictive, where 29.9 % disagreed, 28.6 % agreed, and 28.6 % said maybe, while 12.9 % reported that they did not know. Furthermore, we found that 44.2 % of the participants knew that starting antidepressants did not mean that patients would be on them for life. Furthermore, 36.2 % of the participants knew that stopping taking antidepressants would lead to horrible withdrawal symptoms, and 48.5 % disagree that antidepressants are ineffective. Moreover, we found uncertainty among participants considering that antidepressants have awful long-lasting side effects where 27.8%, 27.4%, and 29 % disagree, agree, and think maybe, respectively. Among the participants, 36.4 % knew that antidepressants are not a short-term fix, and 41 % knew that the drug's effect would not be seen immediately after taking it (Table 2).

In general, we found that 52.7 % of the participants had adequate knowledge considering that depression could answer more than 60 % of the questions correctly. In comparison, 44.6 % of the participants had inadequate knowledge, and 2.7 % did not have any correct knowledge about antidepressants (Figure 1).

Table 1: Demographic factors of the participants

		Count	Column N %
Gender	Male	300	44.9%
	Female	368	55.1%
Age	(16-25)	308	46.1%
	(26-35)	204	30.5%
	(36 –45)	112	16.8%
	> 45	44	6.6%
Education	High school graduate or less	274	41.0%
	Bachelor's degree	291	43.6%
	Master's degree	88	13.2%
	Doctorate	15	2.2%

Table 2: The response of the participants considering questions of knowledge about depression

	I do not know		Agree		Maybe		Disagree	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
Depression can go away on its own	55	8.2%	143	21.4%	255	38.2%	215	32.2%
Antidepressants are addictive	86	12.9%	191	28.6%	191	28.6%	200	29.9%
Starting with antidepressants means you'll be on them for life	76	11.4%	150	22.5%	147	22.0%	295	44.2%
If the patient chooses to stop taking antidepressants, he will have horrible withdrawal symptoms	82	12.3%	242	36.2%	184	27.5%	160	24.0%
Antidepressants are ineffective	93	13.9%	129	19.3%	122	18.3%	324	48.5%
Antidepressants have awful long-lasting side effects.	105	15.7%	183	27.4%	194	29.0%	186	27.8%
Antidepressants are a short-term fix	83	12.4%	163	24.4%	179	26.8%	243	36.4%
The effect of the drug will be seen immediately after taking it, and if not, that means that the patient has to change the medication	98	14.7%	175	26.2%	121	18.1%	274	41.0%

In general, we found that 52.7 % of the participants had adequate knowledge considering that depression could answer more than 60 % of the questions correctly. In comparison, 44.6 % of the participants had inadequate knowledge, and 2.7 % did not have any correct knowledge about antidepressants (Figure 1).

In this study, we did not recognize a significant difference between the sexes considering their knowledge ($P = 0.067$); however, it was noticed that the female participants had a higher percentage of inadequate knowledge (44.8 % compared to 40% of males). Age did not significantly impact the level of knowledge ($P=0.754$). The educational level of the participants appeared to be the only factor that significantly affected the level of knowledge ($P=0.039$); the higher the level of education, the higher the level of knowledge (Table 3).

Taking into account the attitude towards depression and antidepressant medications, we found that 44.3 % of the participants disagreed, believing that the use of antidepressants could negatively affect the person's reputation and career, while 25.9 % agreed. Furthermore,

40.1 % of the participants disagreed that the use of antidepressants could affect the chances of marriage and 53.0 % refused to believe that taking an antidepressant is a sign of weakness, and 32.0 % of the participants agreed that antidepressants will change personality (Table 4).

We found that most participants had a positive attitude towards antidepressant medications (80.5 %), while 19.5 % had a negative attitude (Figure 2).

No demographic factors of the participants were found to have a significant impact on the attitude of the participants toward antidepressant medications, as reported in Table 5. Females appear to have higher levels of positive attitude than males (83.2 % vs. 77.3 %). Furthermore, we found that higher education was slightly associated with a more positive attitude among the participants.

Figure 1: The distribution of the participants according to their level of knowledge

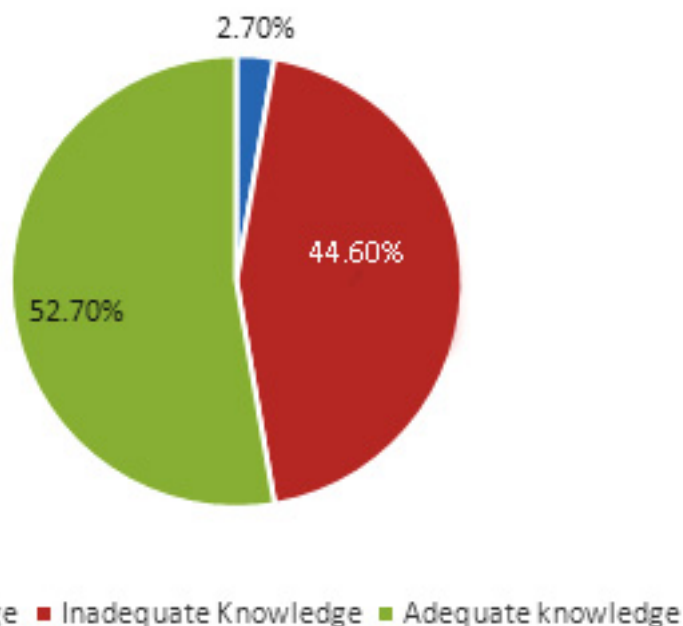


Table 3: The relationship between the demographic factors of the participants and their level of knowledge about depression.

Variable		Level of knowledge						P-value
		No knowledge		Inadequate Knowledge		Adequate knowledge		
		Count	Row N %	Count	Row N %	Count	Row N %	
Gender	Male	7	2.3%	120	40.0%	173	57.7%	0.067
	Female	11	3.0%	178	48.4%	179	48.6%	
Age	(16-25)	10	3.2%	136	44.2%	162	52.6%	0.754
	(26-35)	4	2.0%	97	47.5%	103	50.5%	
	(36 – 45)	2	1.8%	45	40.2%	65	58.0%	
	> 45	2	4.5%	20	45.5%	22	50.0%	
Education	High school graduate or less	11	4.0%	128	46.7%	135	49.3%	0.039*
	Bachelor's degree	4	1.4%	130	44.7%	157	54.0%	
	Master's degree	1	1.1%	35	39.8%	52	59.1%	
	Doctorate	2	13.3%	5	33.3%	8	53.3%	

* Significant if the p-value is lower or equal to 0.05

Figure 2: The distribution of participants according to their attitude

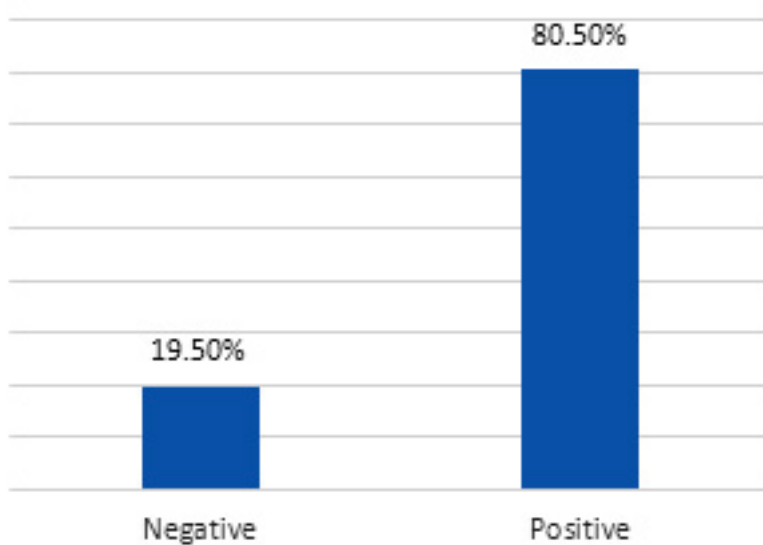


Table 4: The attitude toward antidepressant medications

	I do not know		Disagree		Maybe		Agree	
	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %
The use of antidepressants can negatively affect a person's reputation and career	42	6.4%	292	44.3%	154	23.4%	171	25.9%
The use of antidepressants can affect a patient's chances of marriage	59	9.0%	264	40.1%	170	25.8%	166	25.2%
Taking an antidepressant is a sign of weakness	58	8.8%	349	53.0%	106	16.1%	146	22.2%
Antidepressants will change the patient's personality	74	11.2%	195	29.6%	179	27.2%	211	32.0%

Table 5: Relation between the demographic factors and their attitudes.

		Attitude				
		Negative		Positive		
		Count	Row N %	Count	Row N %	
Gender	Male	68	22.7%	232	77.3%	0.059
	Female	62	16.8%	306	83.2%	
Age	(16-25)	54	17.5%	254	82.5%	0.351
	(26-35)	48	23.5%	156	76.5%	
	(36 – 45)	21	18.8%	91	81.3%	
	> 45	7	15.9%	37	84.1%	
Education	High school graduate or less	62	22.6%	212	77.4%	0.335
	Bachelor's degree	49	16.8%	242	83.2%	
	Master's degree	17	19.3%	71	80.7%	
	Doctorate	2	13.3%	13	86.7%	

Discussion

This study aimed to determine attitudes and awareness toward antidepressant drugs among the Riyadh population. Collectively, the findings demonstrate that slightly more than half of the study population has sufficient knowledge about depression and the role of antidepressants in the management of symptoms. In another recent study conducted in Saudi Arabia, the authors showed that 65.6 % of the participants had a good level of awareness about depression disorders; however, only 15.7 % of the participants had a good level of knowledge regarding antidepressant medications (14). In another study, the authors also reported low levels of awareness of the management of depression (15). These studies differ due to different methodologies for determining knowledge.

The current literature also presents contradictory results, highlighting the existing misconception (16,17). Our findings suggest that the participants were uncertain about the addictive nature of antidepressants. The pharmacodynamic profile, paired with the lack of acute 'desirable' effects of most of the antidepressants currently available, substantiates the unlikely occurrence of addiction (18). In a study conducted by (14), the authors reported that 45.98 % of the participants believed that antidepressant medication could cause addiction. This is similar to another study conducted by (19), who reported that 46 % of the participants thought antidepressant medication could lead to addiction. These results may underscore anxiety about the emerging substance abuse problem in Saudi Arabia and other Gulf countries (20). Furthermore, our study found that participants were uncertain whether depressive symptoms would dissipate without intervention. Research suggests that depression may improve with time but is not guaranteed (21). A 2002 comparative study exclusively investigated the results of depressive disorders with and without medication for one year. The findings showed that patients treated with antidepressants showed a mild improvement, while those treated without drugs deteriorated slightly during the study period (22). Therefore, people experiencing symptoms of depression must be encouraged to seek treatment.

The participants said that starting antidepressants does not mean one will be on them for life. This is true for several patients; however, in some cases, depressive symptoms can reoccur, requiring long-term medication (22). Our study also recorded the perception that if patients choose to stop taking antidepressants, they will experience severe withdrawal symptoms. Like any other medication, failure to follow the prescribed treatment can cause withdrawal symptoms and adverse reactions. The discontinuation syndrome is widely reported and includes symptoms like flu, nausea, imbalance, sensory disturbances, insomnia, and hyperarousal (23). However, this condition develops only in 20% of patients after an abrupt stoppage or significant reduction in the antidepressant dose. It is relieved between one and two weeks after the onset of symptoms (24). Participants in our study agreed that

antidepressants are effective and do not have long-lasting side effects. Current research validates these perspectives and provides evidence that side effects are negligible and manageable (25).

We found that the participants disagreed that antidepressants affect a patient's personality and that their use is a sign of weakness. The stigma associated with antidepressants is a significant cause of non-adherence (26). However, the findings of our study suggest that Riyadh's population has sufficient knowledge of depression and is less likely to discriminate against those who need antidepressants. This is also reflected in the participants' familiarity that antidepressant medication is not a short-term fix and can be combined with other interventions, such as behavioral therapy, to achieve more remarkable positive results.

Conclusion

Knowledge of depression and antidepressant medications among Riyadh residents is inadequate, with some misconceptions including the negative impact of antidepressants on the personality of patients, prospects, and careers. The need for country stakeholders to employ interventions such as mental health education and awareness campaigns among public populations that would help improve awareness of mental health is necessary.

Limitations

The limitations must be considered when interpreting the findings. The primary limitation was the small sample size, which limited the generalizability of the findings. Furthermore, a single geographical location within Saudi Arabia was chosen to obtain the study sample, which hinders the external validity of the results, as the views and perspectives of the people of Riyadh may differ from those of the entire population of Saudi Arabia. The methodology must also be appraised, as we adopted a questionnaire to obtain our results. This introduces bias within our findings, as the responses to each question cannot be validated. Furthermore, those who opted to participate in this study may have prior knowledge of depression and its management, influencing their responses. Future research should address these shortcomings to produce external validity results more representative of the Saudi Arabian population and their views on antidepressants.

Ethical Considerations:

The IMSIU research ethics committee approved the study (project number 234 / 2022. approval date, 8/5/2022). All writing is done according to the ethical principles of the Declaration of Helsinki. A brief description of the study was included with the survey link, with a full explanation on the survey's front page. Participants were told that consent was given by filling out the survey. Throughout the study, the consent of all participants and the data were collected in complete confidence.

References

1. Cuijpers P, Auerbach RP, Benjet C, Bruffaerts R, Ebert D, Karyotaki E, et al. The World Health Organization World Mental Health International College Student initiative: An overview. *International Journal of Methods in Psychiatric Research*. 2019 Jun 6;28(2):e1761.
2. Weinberger AH, Gbedemah M, Martinez AM, Nash D, Galea S, Goodwin RD. Trends in depression prevalence in the US from 2005 to 2015: widening disparities in vulnerable groups. *Psychological medicine*. 2018 Jun 12;48(8):1308–15.
3. Taleb H. Screening for Depression in the Primary Care Clinics in Saudi Arabia. Doctor of Nursing Practice (DNP) Projects. 2016;
4. Park SC, Kim YK. Diagnostic Issues of Depressive Disorders from Kraepelinian Dualism to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition. *Psychiatry Investigation*. 2019 Sep 25;16(9):636–44.
5. Sanacora G, Frye MA, McDonald W, Mathew SJ, Turner MS, Schatzberg AF, et al. A Consensus Statement on the Use of Ketamine in the Treatment of Mood Disorders. *JAMA Psychiatry*. 2017 Apr 1;74(4):399.
6. Corallo F, Lo Buono V, Genovese R, Palmeri R, Di Cara M, Rifichi C, et al. A complex relation between depression and multiple sclerosis: a descriptive review. *Neurological Sciences*. 2019 Aug 18;40(8):1551–8.
7. Sivolap YuP. Antidepressants: the goals and possibilities of therapy. *Zhurnal nevrologii i psikiatrii im SS Korsakova*. 2018;118(12):120.
8. Harmer CJ, Duman RS, Cowen PJ. How do antidepressants work? New perspectives for refining future treatment approaches. *The Lancet Psychiatry*. 2017 May;4(5):409–18.
9. Paredes S, Cantillo S, Candido KD, Knezevic NN. An Association of Serotonin with Pain Disorders and Its Modulation by Estrogens. *International Journal of Molecular Sciences*. 2019 Nov 15;20(22):5729.
10. Hansson M, Bodlund O, Chotai J. Patient education and group counseling to improve the treatment of depression in primary care: A randomized controlled trial. *Journal of Affective Disorders*. 2008 Jan;105(1–3):235–40.
11. Parkin L, Balkwill A, Sweetland S, Reeves GK, Green J, Beral V, et al. Antidepressants, Depression, and Venous Thromboembolism Risk: Large Prospective Study of UK Women. *Journal of the American Heart Association*. 2017 May 5;6(5).
12. Nalçakan AD, Şahin EA, Yalcinkaya OK, Ak S. Antidepressant awareness and stigmatizing attitudes toward depression and antidepressants, a comparison between first and sixth-year medical students. *International Journal of Social Psychiatry*. 2022 Mar 5;68(2):316–23.
13. Vehovar V, Toepoel V, Steinmetz S. Non-probability sampling. In 2016. p. 329–46.
14. ALJadani AH, Alshammari SN, Alshammari KA, Althagafi AA, AlHarbi MM. Public awareness, beliefs, and attitude towards depressive disorders in Saudi Arabia. *Saudi Medical Journal*. 2021 Oct 4;42(10):1117–24.
15. Alenazi MSN, M Alenezi MM, Alenezi NSJ, Alenzi HSK. Awareness of the Saudi population about causes, diagnosis, and management of Depression. *Journal of Clinical Images and Medical Case Reports*. 2021 Dec 10;2(6).
16. Balon R, Silberman EK, Starcevic V, Cosci F, Freire RC, Nardi AE, et al. Benzodiazepines, antidepressants and addiction: A plea for conceptual rigor and consistency. *Journal of Psychopharmacology*. 2019 Nov 26;33(11):1467–70.
17. Jauhar S, Hayes J, Goodwin GM, Baldwin DS, Cowen PJ, Nutt DJ. Antidepressants, withdrawal, and addiction; where are we now? *Journal of Psychopharmacology*. 2019 Jun 21;33(6):655–9.
18. Haddad P. Do antidepressants have any potential to cause addiction? *Journal of Psychopharmacology*. 1999 May 2;13(3):300–7.
19. Alrahili N, Almatham F, Bin Haamed H, Ghaziuddin M. Attitudes to depression in Saudi Arabia: a preliminary study. *International Journal of Culture and Mental Health*. 2016 Jul 2;9(3):255–60.
20. AbuMadini MS, Rahim SIA, Al-Zahrani MA, Al-Johi AO. Two decades of treatment-seeking for substance use disorders in Saudi Arabia: Trends and patterns in a rehabilitation facility in Dammam. *Drug and Alcohol Dependence*. 2008 Oct;97(3):231–6.
21. Bernaras E, Jaureguizar J, Garaigordobil M. Child, and Adolescent Depression: A Review of Theories, Evaluation Instruments, Prevention Programs, and Treatments. *Frontiers in Psychology*. 2019 Mar 20;10.
22. Hasler G, Schnyder U, Klaghofer R, Angst J. Treatment of Depressive Disorders with and without Medication - A Naturalistic Study. *Pharmacopsychiatry*. 2002 Nov;35(6):235–8.
23. Henssler J, Heinz A, Brandt L, Bschor T. Antidepressant Withdrawal and Rebound Phenomena. *Deutsches Ärzteblatt international*. 2019 May 17;
24. Gabriel M, Sharma V. Antidepressant discontinuation syndrome. *Canadian Medical Association Journal*. 2017 May 29;189(21):E747–E747.
25. Hengartner MP. How effective are antidepressants for depression over the long term? A critical review of relapse prevention trials and the issue of withdrawal confounding. *Therapeutic Advances in Psychopharmacology*. 2020 Jan 8;10:204512532092169.
26. Feingold JH, Drossman DA. Deconstructing stigma as a barrier to treating DGBI: Lessons for clinicians. *Neurogastroenterology & Motility*. 2021 Feb 23;33(2).