The Correlation Between People's Age and Their Attitudes Towards People with Depression

Huixuan Zhang^{1,*},

Jiagen Wang²

¹The High School Affiliated to Renmin University of China, Beijing, 100080, China, luna7121@ outlook.com ²Yew Chung International School of Shanghai, Shanghai, 200127, China, 2312358621@qq.com

Abstract:

This article will mainly focus on discovering the correlation between people's age and their attitudes and understanding towards depression. This used a survey to capture participants' background information and attitudes toward depression on a Likert Scale. With the sample size of 280, we concluded that as people age, their attitudes and understanding of depression demonstrate a positive correlation. It was also discovered that people will be more inclined to assist those who are depressed as long as depression-related subjects are discussed more frequently. Thus, there is a need to increase the amount of information about depression that is shared online.

Keywords:—Depression, Age Difference, Attitudes, Surveys

1. Introduction

In today's society, depression has become a psychological problem that cannot be ignored. More and more young people, even children, are suffering from depression. According to the Blue Book of China's Mental Health, in 2023, the number of people suffering from depression in China reached 95 million, with more than 28 million people under the age of 18 accounting for 30.28 percent of the total [1]. However, it is sad that many parents lack enough knowledge and awareness of depression, which is undoubtedly the cruelest thing to patients. This study aims to determine how people's age affects their attitudes and understanding of depression. It is imperative to find out why people's understanding and attitudes about depression are so varied. This paper aims to find out the relationship between people's age and their understanding and attitudes toward depression.

 H_0 : The attitude and understanding of depression do not change with the increase of age.

 H_1 : The attitude and understanding of depression change with the increase of age.

2. Literature Review

While doing our research online, we encountered two previous studies that are inspiring to our study. A study done by Connery and Davidson in 2006 stated that earlier research has established that the general public has unfavorable opinions regarding depression and that older individuals have fewer positive sentiments than younger individuals [2]. These data show a mixed bag of variances in attitudes. While some research finds no differences between men and women, there are indications that men have more negative attitudes than women. The purpose of this study is to examine public perceptions toward depression,

paying particular emphasis to variations in attitudes based on age and gender. A brief Benetz-style questionnaire was completed by 322 acutely unwell outpatients (and visitors) with an 80% total response rate to determine their perspectives on depression. Of the sample, 41% were 65 or older, and 54% were female. Factor analysis has revealed three themes: "negative attitudes towards depression," "recognizing depression as a mental illness," and "recognizing depression." There are noticeable disparities in how young people, older adults, men, and women view depression.

Furthermore, the study Jang et al. conducted in 2009 looked at the perceptions that younger (n = 209) and older (n = 462) Korean-American groups have regarding mental health care. According to Anderson in 1968, predisposing variables (age, gender, marital status, and education), needs (anxiety and depressive symptoms), and enabling factors (acculturation, health insurance, and personal experiences and beliefs) are all included [3]. According to the mid-level evaluation, younger and older adults have similar positive attitudes towards mental health services. A multivariate study revealed that culturally based views significantly influence the conformation of attitudes about mental health care in both age groups. It has been demonstrated that positive attitudes across all categories are consistently predicted by the view that depression is a medical illness. A sample of older persons showed higher negative opinions toward those who thought having a mentally sick family member brought shame to the entire family. That sadness was a sign of personal weakness [4]. The findings show that older people are not only more susceptible to stigma and misconceptions about mental health concerns in their culture but that their opinions about using services also have a detrimental impact on stigma.

3. Exploration

In this experiment, a survey is used. Surveys are used when participants are asked questions that need to be statistically analyzed. Five-point Likert scales are used in our survey to measure participants' attitudes toward depression. Our survey consists of 18 questions separated into four sections. The first section asks for participants' background information involving age and gender; the second section asks how they receive information about depression; and finally, the third section asks for their direct attitude and knowledge about depression.

The sampling method we used is snowball sampling. Snowball sampling is a non-probability sampling method that recruits participants through referrals. We chose this sampling method because snowball sampling increases engagement since we have to gather our data quickly. After all, the survey could generate more accurate results through personal connections due to increased engagement.

The questions in our survey originate from another experiment. We edited the questions from that original survey to better suit our research purpose. Namely, we added the Likert Scale to scientifically measure their attitudes in a way that is available for statistical analysis. We also edited the questions to make them more specific and accurate to avoid misunderstandings. The platform that we used to distribute our survey is called "Wenjuanxing." With this platform, participants can answer the survey by pressing a link to scan a QR code, which makes it more accessible to collect data.

After editing and completing the survey, we sent it to our friends and family for them to answer. Then, we asked them to spread the survey so more participants could complete it. After issuing the survey, we waited two days for the response. At the end, we have 280 sampled responses.

4. Data Analysis



Figure 1. Pie Chart of Question "What is your sex?"



Figure 2. Pie Chart of Question "What is your age?"

HUIXUAN ZHANG, JIAGEN WANG



Figure 3. Pie Chart for "What is your educational background?"

From Figure 1 and Figure 2, we can conclude that our sample consists of 79% female and 21% male. 23% of the participants were under 40, 30% were between 41-49, and 47% were older than 50. Moreover, we found out that for their educational background, as shown in Figure 3, 27% graduated from junior high school, 49% from senior high school, and 24% attended college or higher.







Figure 5. Pie Chart for Question "How many times (s) do you encounter the topic of depression online every day?"

Figure 4 and Figure 5 allow us to understand the participant's source of knowledge on depression and their familiarity with this topic daily. From Figure 4, we can see that 28% of the participants encounter information surrounding depression from traditional media such as books or broadcasts, 16% gather their information from their friends, and 56% receive information from the internet. Moreover, in Figure 5, we can see that 35% of the participants received one or more messages, while 65% received one or none daily.



Figure 6. Pie Chart for Question "What kind of disease do you think depression is?"



Figure 7. Pie Chart for Question "Do you think depression can be cured?"



Figure 8. Pie Chart for Question "Do you think depression can be alleviated through self-regulation?"

Figure 6, Figure 7, and Figure 8, displays the participant's knowledge of depression. In Figure 6, 39% of the

participants think that depression is both a psychological and physiological disease, which is the correct answer. However, 61% of the participants have chosen the wrong answer. In Figure 7, we can see that 91% of the participants think that depression is curable, which is the correct response, but 9% think that it is not curable. Lastly, as shown in Figure 8, 83% chose the correct response, "yes", and 17% chose wrongly. It is fair to conclude that the participants do not have a concrete understanding of depression as a mental illness.



Figure 9. Radar chart of Question "In your opinion, which of the following factors can lead to the formation of depression?"

Figure 9 indicates what the participants think triggers depression. The Likert Scale used in this question indicates that if participants significantly agree with the following statement, choose 5; if participants significantly disagree with the following statement, choose 1. From this graph, we could see that the majority of the participants believed that personality (3.8) and pressure (3.79) trigger depression. However, the 3.08 score for genetics indicates that the majority do not believe it is a significant factor or could not decide.

Table 1. ANOVA	test on particin	ant's age and the	ir attitudes on c	uestions 12 and 13
	ι usi on particip	ant s age and the	n attitutes on t	ucouono 12 anu 13

		Sum of Squares	df	Mean Square	F	Sig.
12. To what extent do you think						
people with depression are dangerous?	Between Groups	5.708	2	2.854	5.145	0.006
	Within Groups	153.663	277	0.555		
	Total	159.371	279			
13. To what extent do you think						
society values people with depression?	Between Groups	11.758	2	5.879	10.262	0
	Within Groups	158.685	277	0.573		
	Total	170.443	279			

Table 1 is an ANOVA test with the age of the participants and questions 12 and 13 on attitudes. From the data, we could see that for question 12, the significance is 0.006, which means that the probability that this is random is 0.006, lower than p = 0.05, indicating that this is significant. Thus, with the increase in age, participants think that people with depression are more dangerous. As for question 13, the significance shown in the table is 0, which means that with the increase in age, participants think that society values people with depression more. The table below will explain why it is with an increase in age instead of a decrease.

HUIXUAN ZHANG, JIAGEN WANG

Dependent Variable			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
12. To what extent do you think people with depression are	1	2	279*	0.124	0.025	-0.52	-0.03
dangerous?							
		3	356*	0.112	0.002	-0.58	-0.14
	2	1	.279*	0.124	0.025	0.03	0.52
		3	-0.078	0.105	0.461	-0.28	0.13
	3	1	.356*	0.112	0.002	0.14	0.58
		2	0.078	0.105	0.461	-0.13	0.28
13. To what extent do you							
think society values people with depression?	1	2	365*	0.126	0.004	-0.61	-0.12
		3	515*	0.114	0	-0.74	-0.29
	2	1	.365*	0.126	0.004	0.12	0.61
		3	-0.15	0.107	0.162	-0.36	0.06
	3	1	.515*	0.114	0	0.29	0.74
		2	0.15	0.107	0.162	-0.06	0.36

Table 2. Post Hoc tests of the ANOVA test

In Table 2, the numbers 1, 2, and 3 indicate the age groups we have identified. Group 1 is below 40 years old, group 2 is between 40 and 50 years old, and group 3 is above 50 years old. The mean difference is between the sample mean and the test mean. When question 12 is the dependent variable, it could be seen that when group 1 is compared to group 2, the mean difference is -0.279, and when group 1 is compared to group 3, the mean difference is -0.365. This means that when Group 1 is compared to

Group 2, group 2 is more significant than Group 1. Since the mean difference between Group 1 and Group 3 is more significant than that between Group 1 and Group 2, group 3 is more significant than Group 2. Thus, with increasing age, participants think that people with depression are more dangerous. The same logic applies to question 13: With increasing age, participants think society values them more.

Table 3. T-test on the frequency of topics on depression and participant's attitude on questions 13 and 16

0		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference
13. To what extent do you think society values people with depression?	Equal variances assumed	6.757	0.01	01 -3.553	278	0	-0.34	0.096
	Equal variances not assumed			-3.718	229.473	0	-0.34	0.091
16. Are you willing to participate in some activities to further improve the understanding of depression and help them?	Equal variances assumed	19.039	0	-3.119	278	0.002	-0.263	0.084
	Equal variances not assumed			-3.273	231.007	0.001	-0.263	0.08

Table 3 is generated with a T-test testing the influence of the average depression topics participants encounter daily on their attitudes on questions 13 and 16. The data indicated with p values of 0.01 and 0, respectively, lower than 0.05, with the increase in the frequency of topics on depression participants see every day, they think society values them more and are also more willing to help.



Figure 10. Radar chart of Question "If someone close to you is suffering from depression, which way would you prefer to help them?"

The question "If someone close to you is suffering from depression, which way would you prefer to help them?" has a prior condition. This question will only be accessed if the participant chooses numbers above two on the previous question, "Are you willing to participate in some activities to further improve the understanding of depression and help them?". We did this because that question asks participants to choose one if they are highly unwilling and five if they are incredibly willing. Therefore, if participants had chosen numbers that resemble unwillingness, their responses to Question 17 would not have been accurate and honest.

Consequently, due to the limitations, it could be seen in Figure 10 that the participants who accessed this question were not willing to neglect people with depression but to help in active ways. However, attending a psychiatrist is not as high as the other options. It could be explained that since the majority of our samples are adults above 40 years old, they are more afraid of going to a psychiatrist because they do not think that depression is something going to a doctor.

5. Evaluation

One of the limitations of this study is the biased samples. The bias in our study comes in multiple scopes. First, 77% of our participants are over 40 years old. Only 23% of our participants are below 40 years old. In this sense, our study lacks the representation of the younger generations, who are more familiar with depression as a psychological disease than the majority of our participants.

Furthermore, since our survey was conducted on an online platform, we could not reach participants who did not have access to electronic devices. Moreover, since our survey is issued in Chinese, our sample is only limited to people who understand Chinese. It limits the range of our study since the results may have differed from a larger, more diverse population. On top of that, there are also cultural influences on our study. Collectivistic cultures such as China and Japan are more likely to gravitate and choose the mean of the Likert Scale. However, individualistic cultures such as America are likelier to choose extreme values such as a one or a five.

Social desirability is another limitation we have. Social desirability occurs when a participant answers questions in a way that makes them more likable, even though it may not accurately reflect their true thoughts. It likely occurred in our studies due to the attitude questions on depression in the survey. The participants may want to represent themselves more positively to demonstrate a

positive, helping attitude towards people with depression on the survey but feel different. Therefore, it influences the reliability of our data.

Moreover, our study also contains ethical considerations. In our survey, we should have mentioned to the participants that they would withdraw from the study anytime they wanted, in this case, stop answering the survey whenever they wanted to. Usually, this message would be displayed before they started surveying informed consent. Lastly, there is also the limitation of misinterpretation of questions on the survey. It occurs when the participant understands the question differently than the researchers do. It could result in the participant choosing an inaccurate answer if they understand the question the same way researchers do. Since our study is conducted on a survey, there is always a chance that participants will misinterpret the question and answer differently, decreasing the reliability of our data.

6. Conclusion

Based on the results, we can conclude that there is a positive correlation between the participant's age and their attitude toward people with depression. As the age increases, participants think that people with depression are more dangerous and also think that society values them more. On top of that, we also learned that there is a positive correlation between the number of topics on depression they see every day and their attitude. When participants see more information on depression every day, then they are more likely to help people with depression voluntarily and also feel like society values them more.

References

[1] Kong, L., Lai, J., & Hu, S. (2023). China Released the Latest National Mental Health Report: A Blueprint for the Future. *Asian Journal of Psychiatry*, *85*, 103624. https://doi.org/10.1016/j.ajp.2023.103624

[2] Connery, H., & Davidson, K. M. (2006). A survey of attitudes to depression in the general public: A comparison of age and gender differences. *Journal of Mental Health*, *15*(2), 179–189. https://doi.org/10.1080/09638230600608818

[3] Andersen, R. (1968). A Behavioral Model of Families' Use of Health Services (Research Series No. 25). Center for Health Administration Studies.

[4] Jang, Y., Chiriboga, D. A., & Okazaki, S. (2009). Attitudes toward mental health services: Age-group differences in Korean American adults. Aging & Mental Health, 13(1), 127–134. https://doi.org/10.1080/13607860802591070