

Use TPB To Explain the Influential Factors of Individual's Intention of Providing Social Support to Depressed Adolescents by Social Media

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Abstract. There are more and more teenagers suffering from depression nowadays. Accordingly, the authors explore and explain the factors influencing individuals' intention of providing social support to depressed adolescents by social media, including media attention, attractive attitude, perceived behavioral control, subjective norms, and cognitive attitude. The authors use the research method of questionnaire and divide it into each factor and send to interviewees by the internet, and use the analysis method of linear regression. Finally, the authors get the result that for attractive attitude, cognitive attitude and intention, the coefficient is greater than 0.9, showing for media attention and subjective norms, the coefficient is smaller than 0.9 but greater than 0.8, for media attention and subjective norms, the coefficient is smaller than 0.9 but greater than 0.8. These show the conclusion that the media attention, attractive attitude, cognitive attitude, behavioral control perception, and subjective norms are significantly influencing the behavioral intention, and there 5 items have positive correlation between them and behavioral intention.

Keywords: Theory of Planned Behavior (TPB), social support, depressed adolescents.

1. Introduction

Nowadays, an increasing number of teenagers suffer from depression and people gain some information via media attention. Accordingly, the authors will explore factors influencing individual's social support for adolescents with depression via questionnaire utilizing the planned behavior theory. In this research, the authors will also explain how media attention can influence people's attitudes and behaviors toward helping teenagers with depression. Firstly, people will get some positive information about helping teenagers with depression via media communication. For example, they know if people could offer more help for teenagers with depression, it probably benefits our society and provides a better growth environment for teenagers. Secondly, media play a role in communicating social responsibility helping teenagers with depression for people especially parents or teachers. The authors' purpose is that communicating social responsibility and benefits about providing individual's social support for teenagers with depression on social platforms in order to enhance people's intention.

2. Literature Review

When it comes to understanding the mechanism of behavioral intention, the Theory of Planned Behavior (TPB) is a highly influential and powerful explanatory framework. To provide a comprehensive explanation for the genesis of various behaviors, TPB incorporates five elements: behavior, intention, subjective norm, perceived behavioral control, and attitude [1]. The theory of planned behavior states that human behavior is determined by three types of considerations: normative beliefs, which are beliefs about the normative expectations of others and the motivation to follow them, behavioral beliefs, which are beliefs about the likely outcomes of the behavior and the evaluations of these outcomes, and control beliefs, which are beliefs about the presence of factors that may help or hinder performance of the behavior and the perceived power of these factors [2]. The concept of perceived behavioral control refers to how easy a person believes a particular behavior to

be. The subjective self-perception of an individual regarding their capacity to perform a specific task encompasses their beliefs, confidence, and perceived ability to carry out the behavior. Additionally, when someone perceives that there are more possibilities and resources accessible, less external impediments exist, and they are aware of their superior inner abilities, they are far more likely to acquire the intention to carry out an action. Perceived behavioral control over behavioral intention is stronger in this situation [3]. Subjective norm refers to the societal pressures that people feel to engage in a particular conduct or not. The subjective norm is mostly derived from the attitudes and behaviors of significant others toward a given behavior [4].

3. Research Methods

3.1. Sample and Procedure

Based on the literature review showing that a questionnaire should be a common assessment of variables in TPB, because it is easy and fast to collect samples, the authors conducted an online survey by sending a questionnaire to Sojump and promoting it in WeChat and QQ. The survey was conducted from September 20-22, 2023.

There are 853 people promoted and 72 responding. The response rates are 0.084%. To be specific, 48.61% of the total participants are adolescent students, 51.39% are adults. The participation has a wide range to find the common idea about social support to depressed adolescents both from peers and adults' views.

Independent variable in the research is media attention. Dependent variable is the intention of people to provide social support for teenagers with depression. Mediators in research are perceived behavioral control and personal standards, affective attitude and cognitive attitude. Hypothesis one is that mediator has positive relationships with perceived behavioral control and personal standards, affective attitude and cognitive attitude respectively. Hypothesis two is that perceived behavior control, subjective norms, affective attitude and cognitive attitude separately have positive relationships with the intention of people provide individual social support for teenagers with depression.

The authors use a 7-points Likert scale in the questionnaire because it is more accurate, best for online surveys [5]. Items are from published journals with minor changes.

3.2. Measures

Demographic variables of respondents are gender (1=male, 2=female, 61.11%female), age (1=lower 18(48.61%), 2=18-27, 3=28-37, 4=38-47(0%), 5=48-57, 6=higher 57), marriage (1=simple: 56.94%, 2=married, 3=other), education (1=undergraduate, 2=graduate, 3=postgraduate, 4=doctor (5=other: 54.17%), and occupation (1=students: 65.28%, 2=employed, 3=retired, 4=other)

The authors use other items to measure variables in TPB and the additional variable: media attention. The examples of behavior of social support comes from 4 modes which are a) emotional support, behavioral support, communication of expectations, assessments, and a common worldview, availability to fresh and varied knowledge, and social connections [6].

Table 1 shows measured variables, items, rate and their sources.

Table 1. Measured variables, items, rate and sources.

Measured variable	items	Rate(1-7)	source
Media attention	Your level of attention to news about helping depressed adolescents on TV is	Never- always	The cognitive mediation model: factors influencing public knowledge of the H1N1 pandemic and intention to take precautionary behaviors [7].
	Your level of attention to news about helping depressed adolescents is	Never- always	
	Your level of attention to news about helping depressed adolescents in the internet is	Never- always	
Attractive attitude	I think offering social support to depressed adolescents (e.g. comforting depressed adolescents, helping with their homework, sharing my world value with them and helping them build new social relation) is	Boring-interesting Unenjoyable-enjoyable Unpleasant-pleasant Bad-good Unattractive-attractive Undesirable-desirable Ugly-beautiful	Application of the Theory of Planned Behavior to Leisure Choice By Azjen [8].
Cognitive attitude		Foolish-wise Harmful-beneficial Useless-useful Weak-strong Passive-active	
Subjective norms	Most people who are important to me approve/ disapprove to my decision to offer social support to depressed adolescents (e.g. to comfort depressed adolescents, help them finish their homework, share my world value with them or help them build new social relationship).	Disapprove-approve	Application of the Theory of Planned Behavior to Leisure Choice By Azjen [9].
	Most people who are important to me think I should offer social support to depressed adolescents (e.g. to comfort depressed adolescents, help them finish their homework, share my world value with them or help them build new social relationship).	Unlikely-likely	
Perceived	For me, offering social support	Impossible-	

behavioral control	to depressed adolescents (e.g. to comfort depressed adolescents, help them finish their homework, share my world value with them or help them build new social relationship) is	possible	Constructing a TPB questionnaire: conceptual and methodological considerations. By Azjen [9].
	For me, whether to offer social support to depressed adolescents (e.g. to comfort depressed adolescents, help them finish their homework, share my world value with them or help them build new social relationship) is totally depended on me.	Strongly disagree-strongly agree	
Behavioral intention	I intend to offer social support to depressed adolescents (e.g. to comfort depressed adolescents, help them finish their homework, share my world value with them or help them build new social relationship) in the near future.	Strongly disagree-strongly agree	Qinghua Yang and Shiwen Wu conducted a theory of planned behavior viewpoint study on how Chinese people's health-protective behavior when air pollution is influenced by social media exposure to health information [10].
	I have it in my mind to offer social support to depressed adolescents (e.g. to comfort depressed adolescents, help them finish their homework, share my world value with them or help them build new social relationship).	Strongly disagree-strongly agree	

3.3. Data Analysis

The authors use SPSS to do the data analysis and the method is linear regression.

There are the procedures of the data analysis. First, calculate the mean values and SD of every variable to describe the features of the data. Second, use SPSS to make a reliability analysis. Find the Cronbach's alpha. If $\alpha \geq 0.7$, the reliability of questions related to one variable is acceptable. Third, use SPSS to make the correlation analysis. First, the correlation between the independent variable, control variables and mediation variables is tested, and then the correlation between control variables, mediation variable and dependent variable goes. The authors find the p-value to see to what extent they correlate and how they correlate. Finally, the authors use SPSS to make the linear regression. Find r^2 and adjust r^2 in the model summary to find the models' explanation to the dependent variable. Then find the significance of ANOVA to see whether the model is useful. As well as B and standardized bata to answer the hypothesis.

4. Result

According to Table 1, the standard deviation is small, the average degree is large the mean value of the overall data is above 3, indicating positive statistical significance.

Table 1 illustrates how the study employs correlation analysis to examine the relationship between five items: intention, perceived behavioral control, cognitive attitude, attractive attitude, and

subjective standards. The strength of the link is expressed using the Pearson correlation coefficient. A detailed investigation reveals that:

Media attention with attractive attitude, cognitive attitude, perceived behavioral control, subjective norms, intention is significant among all five items, and the relative values are 0.413, 0.283, 0.411, 0.451 and 0.369, respectively, and the relative values are all greater than 0. It means there is a positive correlation between the five intention items.

All of the model's VIF values are less than 5, indicating that there is no collinearity issue, according to the multicollinearity (multicoliniarity) test. Additionally, the D-W value is close to 2, indicating that the model is good and that neither autocorrelation nor correlation exists between the sample data. Finally, a concrete examination demonstrates that:

The regression coefficient of media attention was $-0.108(t=-1.592, p=0.116 > 0.05)$, which means that media attention does not have an impact on intention. The coefficient of regression for attractive attitude was $0.612(t=5.168, p=0.000 < 0.01)$, which means that attractive attitude has a significant positive impact on intention. The coefficient of regression for cognitive attitude is $-0.255(t=-2.155, p=0.035 < 0.05)$, which means that cognitive attitude will possess a noteworthy negative impact on intention. Coefficient of regression of perceived behavioral control is $0.195(t=1.704, p=0.093 > 0.05)$, which means that perceived behavioral control does not affect intention. The subjective norms regression coefficient is $0.612(t=5.185, p=0.000 < 0.01)$, which means that subjective norms will significantly enhance the intention.

In conclusion, attractive attitudes and subjective norms will have a notably favorable effect on intention. Cognitive attitude will have a significant negative impact on intention. However, media attention and perceived behavioral control do not affect intention.

For attractive attitude, cognitive attitude and intention, the coefficient is greater than 0.9, which means it has a good reliability. For media attention and subjective norms, the coefficient is smaller than 0.9 but greater than 0.8 so the reliability is acceptable. For perceived behavioral control, the coefficient is smaller than 0.8 but greater than 0.7, so it is valuable but needs correction.

5. Discussion

The research topic is about exploring factors influencing individuals' social support for adolescents with depression. The authors did two questionnaire surveys and got a total of 170 questionnaire results. The research's result is quite different from the previous research. Previous studies have focused on how to cure adolescent depression and its cases, while this study focuses on the impact of adolescent depression on the general public.

6. Conclusion

The analysis shows media attention with attractive attitude, cognitive attitude, perceived behavioral control, subjective norms, and intention is significant among all five items, and the relative values are 0.413, 0.283, 0.411, 0.451 and 0.369, respectively, and the relative values are all greater than 0. It means there is a positive correlation between the five intention items. The authors finally chose the TPB theory which is suitable for the study. TPB has a great deal of authority and explanatory capacity when it comes to researching the process of behavioral intention. To provide a comprehensive explanation for the genesis of various behaviors, TPB incorporates five elements: behavior, intention, subjective norm, perceived behavioral control, and attitude. The methodology is the questionnaire which uses the theory of planned behavior and survey mentioned in the discussion section. In the process of experimenting, the study also has some limitations. For example, the present study size of the sample is too small, and the authors also lack existing research on the topic. In the future, the authors decided to carry out offline activities and convene peers to participate in their activities. The authors will randomly visit households to investigate whether there are any young depression patients in their homes.

Authors Contribution

All the authors contributed equally, and their names were listed in alphabetical order.

References

- [1] Ajzen, I. Constructing a TPB questionnaire: Conceptual and methodological considerations. 2002
- [2] Xu, L., Zhang, J., Ding, Y., Zheng, J., Sun, G., Zhang, W., & Philbin, S. P. Understanding the role of peer pressure on engineering students' learning behavior: A TPB perspective. *Frontiers in Public Health*, 2023, 10, 1069384.
- [3] Liao, C., Chen, J. L., & Yen, D. C. Theory of planning behavior (TPB) and customer satisfaction in the continued use of e-service: An integrated model. 2007.
- [4] Zorrilla, M. M., Modeste, N., Gleason, P. C., Sealy, D. A., Banta, J. E., & Trieu, S. L. Depression and help-seeking intention among young adults: The theory of planned behavior. *American journal of health education*, 2019, 50(4), 236-244
- [5] Azhar M, Nafees S, Hamid S. Understanding post-pandemic travel intention toward rural destinations by expanding the theory of planned behavior (TPB)[J]. *Future Business Journal*, 2023, 9(1): 1-17.
- [6] Vaux A, Riedel S, Stewart D. Modes of social support: The social support behaviors (SS-B) scale[J]. *American Journal of Community Psychology*, 1987, 15(2): 209-232.
- [7] Ho S S, Peh X, Soh V W L. The cognitive mediation model: Factors influencing public knowledge of the H1N1 pandemic and intention to take precautionary behaviors[J]. *Journal of Health Communication*, 2013, 18(7): 773-794.
- [8] Ajzen I, Driver B L. Application of the theory of planned behavior to leisure choice[J]. *Journal of Leisure Research*, 1992, 24(3): 207-224.
- [9] Ajzen I. Constructing a TPB questionnaire: conceptual and methodological considerations. 2002.
- [10] Yang Q, Wu S. What a Social Media Exposure to Health Information Influences Chinese People's Health Protective Behavior during Air Pollution: A Theory of Planned Behavior Perspective, *Health Communication*, 2021, 36:3, 324-333,