

Investigation and Countermeasure Study on the Current Situation of Depression among Teaching Staff in Deyang City

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Abstract

Objective: In order to understand the current situation of depression among teaching staff in Deyang City, and provide reference basis for psychological health education and intervention for teaching staff in this area. **Method:** Self rating depression scale (SDS) was used to investigate the mental health status of faculty members who met the inclusion and exclusion criteria and underwent physical examinations at a health management center in Deyang City from May to December 2021. **Result:** The positive rate of depression symptoms among teaching staff in Deyang City was 21.6%; among those with positive depressive symptoms, the top five single symptoms were difficulty in decision-making (75.6%), feeling of emptiness in life (74.9%), heavy morning and light night (73.4%), decreased sexual interest (72.3%), and despair (69.9%); There was a statistically significant difference in the positive rate of depression symptoms among survey subjects of different age groups, educational backgrounds, income, and positions ($P < 0.05$); the results of multivariate logistic regression analysis showed that age and education are the common influencing factors for the positive rate of depression symptoms, the older the age and higher the level of education, the lower the risk of depression for teachers. **Conclusion:** The positive rate of depression among teaching staff in Deyang City is relatively high, and special attention should be paid to the psychological status of young teachers and staff with low educational backgrounds.

Keywords

Teaching Staff, Mental Health, Response Methods, Social Support

1. Introduction

Teaching staff (Wang & Niu, 2022) refer to personnel directly engaged in educa-

tion, teaching, teaching experiments, as well as healthcare and other teaching work in schools. Research has found (Xiao & Zhang, 2022) that faculty members may experience psychological stress and affect their mental health due to factors such as individual cognitive and value biases, conflicts between job requirements and personal competence. Depression is a complex emotional state characterized by extreme depression, physical discomfort, laziness and lack of language, and persistent and obvious depression. In severe cases, psychotic symptoms such as hallucinations and delusions may occur. If depression is excessive, it can lead to suicide, injury, or even murder, which can have serious consequences and impacts on families and society, and cause damage to individual physical and mental health (Hu, 2018). The purpose of this study is to understand the current state of depression among teaching staff in Deyang City, analyze the relevant factors that affect depression among teaching staff, and propose intervention suggestions to provide reference basis for psychological health education and intervention for teaching staff in this area.

2. Object and Method

2.1. Object

From May to December 2021, a mental health survey was conducted on faculty members aged 20 - 65 who underwent health examinations in Deyang City. This survey has been reviewed and approved by the Ethics Committee of Deyang People's Hospital, and all research subjects have informed consent.

2.2. Method

2.2.1. Survey Tools

1) General situation questionnaire: including gender, age, educational background, marital status, income, position, and length of service.

2) The Self Rating Depression Scale (SDS) (Yuan et al., 2021) is used to evaluate depressive mood. The scale consists of 20 specific items, each of which explains the typical symptoms of depression. The 20 items are divided into 4 categories, namely: a) psycho emotional symptoms, including depressive mood and crying; b) Somatic disorders, including eight items: daytime differences in emotions, sleep disorders, decreased appetite, decreased libido, constipation, tachycardia, and fatigue susceptibility; c) Psychomotor disorders, including two items: psychomotor delay and agitation; d) Depression psychological disorders include eight items: confusion, hopelessness, irritability, indecisiveness, self depreciation, emptiness, repetitive thinking, suicide, and dissatisfaction.

2.2.2. Result Determination

Each item is scored using the Likert 4-level scoring method. Among them, items 2, 5, 6, 11, 12, 14, 16, 17, 18, and 20 are negative points, while items 1, 3, 4, 7, 8, 9, 10, 13, 15, and 19 are positive points. The standard score is $(\text{total score}/80) \times 100$ points, and the results are judged according to the standard score. The higher the standard score, the more severe the depressive tendency. The specific

Table 1. (SDS) depression assessment criteria.

standard score	depression status
25 - 52 points	No depressive symptoms
53 - 62 points	Mild depressive symptoms
63 - 72 points	Moderate depressive symptoms
73 - 100 points	Severe depressive symptoms

judgment criteria are shown in **Table 1**.

2.2.3. Survey Methods

A questionnaire survey was conducted on the teaching staff participating in the survey using the PEM psychological examination management platform depression self-assessment scale system. The respondents used computers or mobile phones to fill out the questionnaire separately in the compartment. Before the investigation begins, professional investigators will provide project introductions, informed consent, and unified guidance language. During the investigation process, if there are unclear questions, on-site investigators can be invited to explain and explain.

2.2.4. Quality Control

The investigation steps are carried out by professional investigators, who undergo unified training and guidance before implementation. The survey adopts the PEM psychological examination management platform depression self-assessment scale system, which is filled out by the respondents themselves to avoid data distortion caused by concerns about privacy leakage. The collected questionnaire is logically proofread by two members of the project team. Questionnaires with missing, incorrect, or logical errors, as well as those with a response time of less than 100 seconds, are considered unqualified and will be rejected.

2.3. Statistical Analysis

The data entry of this study was conducted using a dual entry verification method, and the sorted research data was statistically analyzed using SPSS 25.0 software. The measurement data all conform to normal distribution and are described by $\bar{x} \pm s$. The total SDS scores of different demography groups are compared by single factor analysis of variance and independent sample t-test. The difference is statistically significant if $P < 0.05$.

3. Results

3.1. Basic Information

A total of 3300 people were surveyed in this study, and 3300 valid questionnaires were collected, with a questionnaire recovery rate of 100%. Among them, 2180 males (66.06%) and 1120 females (33.94%); Mainly aged 30 - 39 years, accounting for 36.58%; 3048 married individuals (92.36%) and 252 unmarried individu-

als (7.64%); The education level is mainly college or undergraduate, accounting for 81.73%; Income of 3000 - 5000 yuan, accounting for 40.64%; The majority of teachers with professional titles below Level 2 and Level 3, accounting for 68.82%; Working experience of 10 - 15 years, accounting for 27.85%. Please refer to **Table 2** for details.

3.2. Positive Depressive Symptoms

A total of 715 people had depressive symptoms this time, with a positive rate of 21.6%, as shown in **Table 3**. Among those with positive depressive symptoms,

Table 2. Demography and occupational characteristics of respondents.

Name	Option	Frequency	Percentage (%)	Cumulative percentage (%)
age group	Below 30	257	7.79	7.79
	30 - 39	1207	36.58	44.36
	40 - 49	792	24.00	68.36
	50 - 65	1044	31.64	100.00
gender	male	2180	66.06	66.06
	female	1120	33.94	100.00
marital status	married	3048	92.36	92.36
	unmarried	252	7.64	100.00
education	Junior high school and below	51	1.55	1.55
	High school and technical secondary school	109	3.30	4.85
	Junior College and Undergraduate	2697	81.73	86.58
	Master's and PhD	443	13.42	100.00
income	Below 3000 yuan	908	27.52	27.52
	3000 - 5000 yuan	1341	40.64	68.15
	5000 - 10,000 yuan	875	26.52	94.67
	10,000 - 15,000 yuan	176	5.33	100.00
Professional Title	Level 2 and below	2271	68.82	68.82
	Level 2 or above	1029	31.18	100.00
Years of service	5 years and below	118	3.58	3.58
	5 - 10 years	501	15.18	18.76
	10 - 15 years	919	27.85	46.61
	15 - 20 years	808	24.48	71.09
	20 - 25 years	381	11.55	82.64
	25 - 30 years	388	11.76	94.39
	Over 30 years	185	5.61	100.00

the top five single symptoms were difficulty in decision-making (75.6%), feeling of emptiness in life (74.9%), heavy morning and light night (73.4%), decreased sexual interest (72.3%), and despair (69.9%), as shown in **Table 4**. There was a

Table 3. Positive rate of depressive symptoms.

Project	Number of people	Positive rate (%)
Mild depressive symptoms present	462	14%
Moderate depressive symptoms present	187	5.6%
Severe depressive symptoms	66	2%
amount to	715	21.6%

Table 4. Incidence and ranking of individual symptoms among respondents with positive depressive symptoms.

Investigation content	Introduce symptoms	Total number of people	Percentage (%)	Number of people with depression	Percentage (%)
1. Feeling depressed and depressed	melancholy	309	9.3%	254	35.5%
*2. I think morning is the best part of the day	Morning heavy and night light	1543	46.8%	525	73.4%
3. Bursts of crying or feeling like crying	Easy to cry	123	3.7%	102	14.3%
4. Poor sleep at night	Sleep disorders	700	21.2%	364	50.9%
*5. Eating as much as usual	anorexia	623	18.9%	325	45.4%
*6. Feeling happy in close contact with the opposite sex as before	Decreased sexual interest	1037	31.4%	517	72.3%
7. Weight is decreasing	lose weight	174	5.2%	80	11.2%
8. The Pain of Constipation	constipation	247	7.5%	133	18.6%
9. Heart rate is higher than usual	palpitate	151	4.6%	115	16.1%
10. Feeling tired for no reason	Easily fatigued	596	18.1%	380	53.1%
*11. My mind is as clear as usual	Difficulty in thinking	675	20.5%	451	63.1%
*12. There is no difficulty in doing things frequently	Decreased ability	908	27.5%	481	67.3%
13. Feeling uneasy and unable to calm down	intranquil	267	8.1%	210	29.4%
*14. Have hope for the future	despair	704	21.3%	500	69.9%
15. Easier to get angry and excited than usual	irritability	475	14.4%	309	43.2%
*16. I think making a decision is easy	Difficulty in making decisions	962	29.2%	541	75.6%
*17. I feel like a useful person and someone needs me	A sense of uselessness	616	18.7%	459	64.2%
*18. Life is very interesting	A sense of emptiness in life	737	22.3%	536	74.9%
19. I think if I die, others will live better	unworthiness	161	4.9%	88	12.3%
*20. I am still interested in things that I am usually interested in	Loss of interest	518	15.7%	405	56.6%

Note: *is a reverse scoring question.

statistically significant difference in the positive rate of depression symptoms among survey subjects of different age groups, educational backgrounds, income, and positions ($P < 0.05$). Among them, those aged 30 - 39 are higher than those aged 40 - 49; College and undergraduate students are higher than graduate and doctoral students; Those with incomes between 3000 to 5000 yuan and above 5000 yuan; Teaching staff with professional titles at or below level 2 and above level 2. There was no statistically significant difference in the positive rate of depression symptoms among survey subjects of different genders, marital status, and working years ($P > 0.05$). Please refer to **Table 5** for details.

3.3. Analysis of Factors Influencing the Positive Rate of Depression Symptoms

Using the severity of depressive symptoms as the dependent variable (0 = none, 1 = mild, 2 = moderate, 3 = severe) and statistically significant age group, education level, income, and job position as independent variables in univariate analysis, a multivariate logistic regression analysis was conducted. The results showed that age and education level were the common influencing factors for the positive rate of depressive symptoms; The older the staff, the lower the risk of depression; Compared to the educational level of college or below, graduate and doctoral students have a lower risk of developing depression. Please refer to **Table 6** for details.

4. Discussion

1) In this study, the self rating depression scale score of the surveyed faculty was 43.39 ± 11.62 points, which is higher than the national norm (Wang & Guan, 2021) (41.88 ± 10.57 points), and the difference was statistically significant ($p < 0.01$). Research has shown (Wang & Zhou, 2022) that depression can greatly harm the physical health of faculty and staff. As a special profession in society, teaching staff may face high intensity and pressure due to the nature and content of their work. Research has shown that their sense of job burnout is relatively high (Xue & Zhao, 2022). In the early stages of working, faculty members are also in important stages of life, such as establishing a family, getting married, and having children. They may experience multiple pressures and are prone to developing depression (Huang, 2020). In addition, the general public has a good understanding of the faculty and staff group, believing that their work and income are stable, the difficulty of work is relatively easy, and it is easy to overlook their emotional state changes, leading to their negative emotions not being understood (Xian, 2021). The positive rate of depression symptoms among faculty members in this study was 21.6%, Lower than the positive rate of depression surveyed by Yang Rui (Yang et al., 2021) in Lizhou District, Guangyuan City, this may be related to the high pressure and long working hours faced by primary and secondary school faculty.

2) Among 715 people diagnosed with depressive symptoms, over 70% have symptoms of psychological and physical disorders such as difficulty in decision-

Table 5. Positive rates of depression symptoms among survey subjects with different characteristics.

Project	Name	Evaluation results				Total	χ^2	<i>P</i>
		No	Mild	Moderate	Severe			
age group	Below 30	200 (7.74)	46 (9.96)	8 (4.28)	3 (4.55)	257 (7.79)	25.103	0.003**
	30 - 39	937 (36.25)	167 (36.15)	75 (40.11)	28 (42.42)	1207 (36.58)		
	40 - 49	607 (23.48)	106 (22.94)	53 (28.34)	26 (39.39)	79 2 (24.00)		
	50 - 65	841 (32.53)	143 (30.95)	51 (27.27)	9 (13.64)	1044 (31.64)		
gender	male	1695 (65.57)	312 (67.53)	128 (68.45)	45 (68.18)	2180 (66.06)	1.332	0.722
	female	890 (34.43)	150 (32.47)	59 (31.55)	21 (31.82)	1120 (33.94)		
marital status	married	2393 (92.57)	418 (90.48)	176 (94.12)	61 (92.42)	3048 (92.36)	3.309	0.346
	unmarried	192 (7.43)	44 (9.52)	11 (5.88)	5 (7.58)	252 (7.64)		
education	Junior high school and below	35 (1.35)	13 (2.81)	3 (1.60)	0 (0.00)	51 (1.55)	48.906	0.000**
	High school and technical secondary school	71 (2.75)	28 (6.06)	10 (5.35)	0 (0.00)	109 (3.30)		
	Junior College and Undergraduate	2092 (80.93)	383 (82.90)	158 (84.49)	64 (96.97)	2697 (81.73)		
	Master's and PhD	387 (14.97)	38 (8.23)	16 (8.56)	2 (3.03)	443 (13.42)		
income	Below 3000 yuan	677 (26.19)	148 (32.03)	64 (34.22)	19 (28.79)	908 (27.52)	26.450	0.002**
	3000 - 5000 yuan	1041 (40.27)	183 (39.61)	85 (45.45)	32 (48.48)	1341 (40.64)		
	5000 - 10,000 yuan	722 (27.93)	110 (23.81)	33 (17.65)	10 (15.15)	875 (26.52)		
	10000 - 15,000 yuan	145 (5.61)	21 (4.55)	5 (2.67)	5 (7.58)	176 (5.33)		
level	Level 2 and below	1734 (67.08)	336 (72.73)	150 (80.21)	51 (77.27)	2271 (68.82)	20.448	0.000**
	Level 2 or above	851 (32.92)	126 (27.27)	37 (19.79)	15 (22.73)	1029 (31.18)		
Years of service	5 years and below	96 (3.71)	17 (3.68)	3 (1.60)	2 (3.03)	118 (3.58)		
	5 - 10 years	389 (15.05)	72 (15.58)	29 (15.51)	1 1 (16.67)	501 (15.18)		

Continued

10 - 15 years	710 (27.47)	133 (28.79)	56 (29.95)	20 (30.30)	919 (27.85)		
15 - 20 years	626 (24.22)	109 (23.59)	49 (26.20)	24 (36.36)	808 (24.48)	15.050	0.659
20 - 25 years	304 (11.76)	51 (11.04)	20 (10.70)	6 (9.09)	381 (11.55)		
25 - 30 years	313 (12.11)	54 (11.69)	19 (10.16)	2 (3.03)	388 (11.76)		
Over 30 years	147 (5.69)	26 (5.63)	11 (5.88)	1 (1.52)	185 (5.61)		

* $P < 0.05$, ** $P < 0.01$.

Table 6. Logit regression analysis results of influencing factors on the positive rate of depression symptoms among survey subjects.

1.0	regression coefficient	standard error	<i>z</i> -value	Wald χ^2	<i>p</i> -value	OR-value	OR-value 95% CI
age group	-0.119	0.055	-2.160	4.664	0.031	0.887	0.796 - 0.989
education	-0.585	0.107	-5.457	29.784	0.000	0.557	0.452 - 0.687
income	-0.094	0.107	-0.872	0.761	0.383	0.911	0.738 - 1.124
Professional Title	-0.003	0.204	-0.016	0.000	0.987	0.997	0.669 - 1.486
intercept	0.582	0.389	1.498	2.245	0.134	1.790	0.836 - 3.835
2.0	regression coefficient	standard error	<i>z</i> -value	Wald χ^2	<i>p</i> -value	OR-value	OR-value 95% CI
age group	-0.012	0.082	-0.150	0.023	0.880	0.988	0.840 - 1.161
education	-0.354	0.162	-2.187	4.784	0.029	0.702	0.511 - 0.964
income	-0.128	0.157	-0.811	0.658	0.417	0.880	0.646 - 1.198
Professional Title	-0.443	0.312	-1.418	2.010	0.156	0.642	0.348 - 1.185
intercept	-0.697	0.596	-1.170	1.368	0.242	0.498	0.155 - 1.602
3.0	regression coefficient	standard error	<i>z</i> -value	Wald χ^2	<i>p</i> -value	OR-value	OR-value 95% CI
age group	-0.203	0.137	-1.488	2.214	0.137	0.816	0.624 - 1.067
education	-0.382	0.270	-1.413	1.996	0.158	0.682	0.402 - 1.160
income	0.203	0.256	0.794	0.630	0.427	1.225	0.742 - 2.024
Professional Title	-0.696	0.495	-1.406	1.977	0.160	0.499	0.189 - 1.315
intercept	-1.478	0.984	-1.502	2.257	0.133	0.228	0.033 - 1.568

making, feeling empty in life, heavy morning and light night, decreased sexual interest, and despair. If these negative emotions cannot be released for a long time and treated promptly and formally, it can lead to physical dysfunction. Therefore, relevant departments should prioritize the psychological health of faculty and staff, screen and detect them as soon as possible (Jiang, 2022), pay attention to those who have already developed depressive symptoms, and provide correct medical channels and psychological counseling. Univariate analysis

showed that the positive rate of depression symptoms in young and working staff was higher than that in older and working staff. The positive rate of depression symptoms among faculty members with low income and professional titles at or below the second level is higher than that of those with high income and high positions, consistent with previous studies (Luo, 2021). For young faculty members, their social support is limited and they cannot properly handle various problems encountered in their work. Failure to find the correct way to vent and long-term accumulation of negative emotions can lead to depression. Some low-income faculty members have poor enthusiasm and initiative in their work, do not find solutions in a timely manner when encountering difficulties, and only complain. Some faculty members lack moral integrity, lack ability, and long-term work is not recognized by their leaders. Their psychology is full of imbalance, and over time, they are also prone to depression. So teaching staff should learn to self regulate negative emotions, learn to manage their own emotions, and enhance their ability to withstand stress.

3) Logistic regression analysis shows that after controlling for factors such as income and professional title, the main factors affecting the positive rate of depression symptoms are age and education level. Among them, those with lower education levels have a higher positive rate of depression symptoms, indicating low education level, relatively small promotion space, and poor salary and benefits; Economic pressures such as clothing, food, housing, and transportation are high. At the same time, due to the fast pace of life, commuting, and the gradual narrowing of social circles, social support is relatively weak, and there is no overall perspective when considering things. Therefore, the risk of depression is higher, and the sense of work achievement and recognition is low, resulting in a psychological gap between reality and expectations. When formulating psychological intervention strategies, it may be necessary to prioritize the younger age group and lower education level of teaching staff in Deyang area.

5. Countermeasure Research

1) Increase the importance of leaders and employees, and add mental health examination items in health examinations (Wang & Zhou, 2022), through early screening, early detection, and early intervention. Because early psychological illnesses are often difficult to detect, problems can only be detected through physical examinations and tests; regularly arrange psychological health counseling lectures for employees; increase the diversity of unit cultural activities; there are ways to increase employee motivation and relieve stress. Employees should also value themselves and use the knowledge they have learned to evaluate themselves. Mild symptoms can be self regulated, such as confiding with friends, exercising, and other ways to release stress. Severe cases require formal treatment at the hospital and psychological counseling.

2) Relevant departments of the unit attach importance to and carry out activities. Because they face the dual pressure of life and work every day, they should

be provided with a communication platform and choose a certain day of the month for accessible communication and exchange. The activities held by the unit are diverse.

3) Provide pre employment training for young faculty and staff, and invite psychological experts to the unit to explain psychological issues and how to prevent and alleviate stress; Ask them to learn to self evaluate whether they have any adverse symptoms (Zhou, 2021).

4) Provide multiple channels for educational advancement (Xiao, 2020), which can be conducted through full employment or on-the-job methods; you can choose online learning methods. The unit can provide some reward mechanisms to encourage everyone to improve their academic qualifications. By enabling further development of abilities, one can have a more holistic perspective on the problem and achieve different outcomes.

6. Conclusion

The positive rate of depression among teaching staff in Deyang City is relatively high, and special attention should be paid to the psychological status of young teachers and staff with low educational backgrounds. Schools should attach great importance to employees' mental health related work, provide pre job training on relevant content when teachers enter the workforce, and enhance employees' awareness of mental health through regular activities.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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