

Survey and Strategies for the Mental Health Status of Workers: A Case Study of Qingdao City, Shandong Province

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Abstract

In order to investigate the mental health status and needs of the workforce, a survey was conducted in the form of a questionnaire among 2,414 employees. The results revealed that “excessive perceived stress” is the most prevalent mental issue among workers. Furthermore, male employees exhibited slightly better mental well-being compared to their female counterparts, while those with lower educational qualifications typically enjoyed better mental health, whereas higher-educated workers were more prone to experiencing emotional problems. Married employees appeared to exhibit more favorable mental well-being. When exploring the factors influencing the mental status of workers, the research indicated that “family financial pressure,” “salary and benefits,” “social changes,” and “physical health” had the most significant impact on mental well-being. Additionally, female employees, individuals with a junior high school education or below, and married workers displayed the highest demand for mental services. These findings contribute to a deeper understanding of the mental health issues faced by the workforce and offer valuable insights for tailoring strategies to better address the diverse mental health needs of workers, thereby presenting pertinent recommendations for the enhancement of employees’ mental well-being.

Keywords: employee psychological health, psychological services demand, adverse mental status, mental stress

1. Introduction

Employee health serves as the foundation of organizational well-being. The emergence of psychological health issues among employees not only jeopardizes the happiness of individuals and their families but also exerts immeasurable adverse effects on the safety and development of enterprises (Hu, J., & Hou, P.,

2005). Recent research on the psychological well-being of employees in Qingdao city reveals that there are ongoing risks to the mental health of the workforce, with an increased frequency of negative emotions. Particularly notable is the prevalence of low spirits and a sense of powerlessness among young employees, leading to a decline in their mental well-being. This

paper conducts a survey to analyze the psychological health status of employees and assess their public health education needs. The aim is to gain insight into their mental states and health requirements, providing a valuable reference point for the comprehensive implementation of health education and public health safety measures in Qingdao city.

2. Research Sample and Tools

This study targeted a diverse group of employees across the entire city. A total of 2,414 valid questionnaires were collected, as detailed in Table 1.

Table 1. Demographic Characteristics of the Sample

		Number	Percentage
Gender	Male	991	46.3%
	Female	1150	53.7%
Education	Junior high school and below	111	5.2%
	High school/vocational high school/technical school	174	8.1%
	Associate's Degree	267	12.5%
	Bachelor's Degree	1045	48.8%
	Master degree or above	544	25.4%

A questionnaire survey method was employed in this study, utilizing a self-developed "Employee Psychological Status and Coping Strategies Questionnaire." The questionnaire, built upon the collection of demographic information from the employees, employed statistical techniques such as descriptive analysis and cross-analysis to investigate three primary aspects: the overall psychological status of employees, the influencing factors, and coping strategies. It conducted a comparative analysis of the causes from various perspectives, encompassing family, work, social environment, and individual factors. The overarching goal was to comprehensively delineate the profile of the surveyed employee group and, in doing so, to unveil the psychological and behavioral patterns of the employees. This holistic approach aimed to effectively address both common and specific psychological issues among employees, thereby enhancing the targeted and effective delivery of union services for employee psychological well-being.

The survey was distributed and collected through an online platform to ensure uniformity, and rigorous data cleansing procedures were employed to maintain overall data quality. Subsequent data analysis was conducted using the SPSS 26.0 statistical software.

3. Findings

3.1 Overall Analysis of Workers' Psychological State

The overall self-assessment score for the 5-level psychological status scale is 3.78, which is higher than the median value of 2.50 within the group. In general, the psychological health status of employees can be categorized as moderately above average. An analysis of the common adverse psychological states among the employee group reveals that "excessive perceived stress" is the most prevalent psychological issue.

To further compare the differential characteristics of psychological states and psychological problems among different employee groups, the overall results of the cross-analysis are as follows:

3.1.1 The Psychological Status of Employees Does Not Exhibit Significant Differences Based on Gender, Whether They Have Children, or Their Years of Work Experience (Table 2)

Regarding gender, males account for 46.3% while females make up 53.7% of the sample. Although the self-assessed psychological status is 3.79 for males and 3.77 for females, the p-value is .651, indicating that the difference is not statistically significant. In terms of having children, employees from one-child families have an overall self-assessment score of 3.82, those from two-child families have a score of 3.80, and employees without children have a

score of 3.68. The p-value is .032, but the difference is not considered significant. Similarly, the psychological status scores among employees with different years of work

experience hover around 3.7, with a p-value of .090, indicating that the difference is not statistically significant.

Table 2. The proportion and psychological state of employees with different gender, children and working years

		Number	Percentage	Psychological state	F	P
Gender	Male	991	46.3	3.79	.205	.651
	Female	1150	53.7	3.77		
	None	645	30.1	3.68		
Children	one	1222	57.1	3.82	2.949	.032
	two	261	12.2	3.80		
	Three or more	13	0.6	3.62		
Working years	5 years or less	358	16.7	3.80	2.165	.090
	6 to 15 years	791	36.9	3.72		
	16 to 25 years	549	25.6	3.77		
	26 years and above	443	20.7	3.87		

3.1.2 There Are Differences in the Psychological Health Status of Employees with Varying Levels of Education

While the number and proportions of employees with bachelor's and master's degrees or higher differ, their psychological health status scores both average 3.73. On the other hand, employees with other three levels of education: junior high school or below, high school, and associate's degree, all have psychological health status scores around 3.90, with high school being the

highest at 3.98. The p-value between all the different levels of education surveyed is .010, indicating the presence of differences (Table 3). Employees with associate's degrees and higher educational qualifications exhibit significantly higher risk of experiencing emotional problems, those with a high school education are more prone to sleep problems, and employees with junior high school or below education tend to be more sensitive to stress issues (Wang, J., Shi, Y., & Lin, Q., 2009).

Table 3. The Proportion and Psychological State of Workers with Uneducated Degree

		Number	Percentage	Psychological state	F	P
Education	Junior high school and below	111	5.2	3.90	3.346	.010
	High school/vocational high school/technical school	174	8.1	3.98		
	Associate's Degree	267	12.4	3.86		
	Bachelor's Degree	1045	48.8	3.73		
	Master degree or above	544	25.4	3.73		

3.1.3 There Are Highly Significant Differences in the Psychological Health Status of Employees Based on Their Birth Year, Household Registration, Marital Status, and Workplace

Employees born in different decades (60s, 70s,

80s, 90s, and 00s) exhibit significant differences in their psychological health status. Among these groups, those born in the 2000s have the highest psychological health score at 4.25, while those born in the 1980s have the lowest score at

3.74, with a p-value of .000, indicating highly significant differences (Table 4). Similarly, employees from different household registration

areas, marital statuses, and workplaces also demonstrate noticeable variations in their psychological health status ($p < .05$).

Table 4. The proportion and psychological state of employees with different birth years, household registration, marriage and units

		Number	Percentage	Psychological state	F	P
Birth year	60s	173	8.1	4.08	8.536	.000
	70s	564	26.3	3.77		
	80s	796	37.2	3.74		
	90s	548	25.6	3.68		
	00s	60	2.8	4.25		
Census register	Qingdao household registration	1662	77.6	3.73	6.113	.000
	Qingdao Residence Permit	267	12.5	3.87		
	No Qingdao residence permit	209	9.8	4.00		
	Foreigners (including Hong Kong, Macao and Taiwan)	3	0.1	2.67		
Marriage	Spinsterhood	460	21.5	3.65	4.952	.007
	Married	1610	75.2	3.80		
	Others	71	3.3	3.94		
Nature of unit	Party and government offices	1182	55.2	3.69	6.292	.000
	State-Owned Enterprise	416	19.4	3.82		
	Private Enterprise	333	15.6	3.94		
	Foreign-Invested Enterprise	144	6.7	3.84		
	Others	66	3.1	4.09		

3.2 Factors Influencing Employee Psychological Status

3.2.1 The Problem of “Family Economic Pressure” Is More Prominent

The survey reveals that 48.4% of employees believe that “family economic pressure” can

influence their psychological status. Following that, “family members’ health” and “childhood education” issues also have significant impacts on the psychological status of employees (Figure 1).

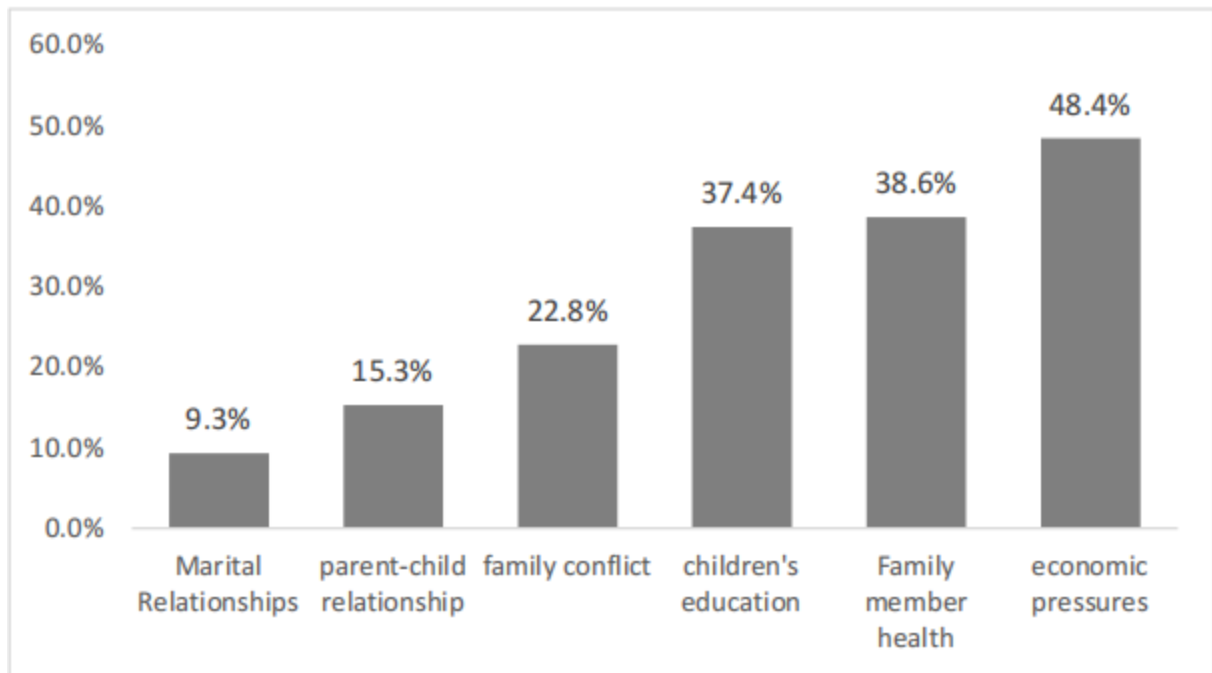


Figure 1. Family factors that have an impact on employee psychology

3.2.2 In Terms of Job Influencing Factors, the Impact of “Salary and Benefits” Is More Prominent

40.5% of the employees believe that “salary and

benefits” will affect their psychological state, and second, “heavy workload” and “career development” also have an important impact on the psychological state of employees (Figure 2).

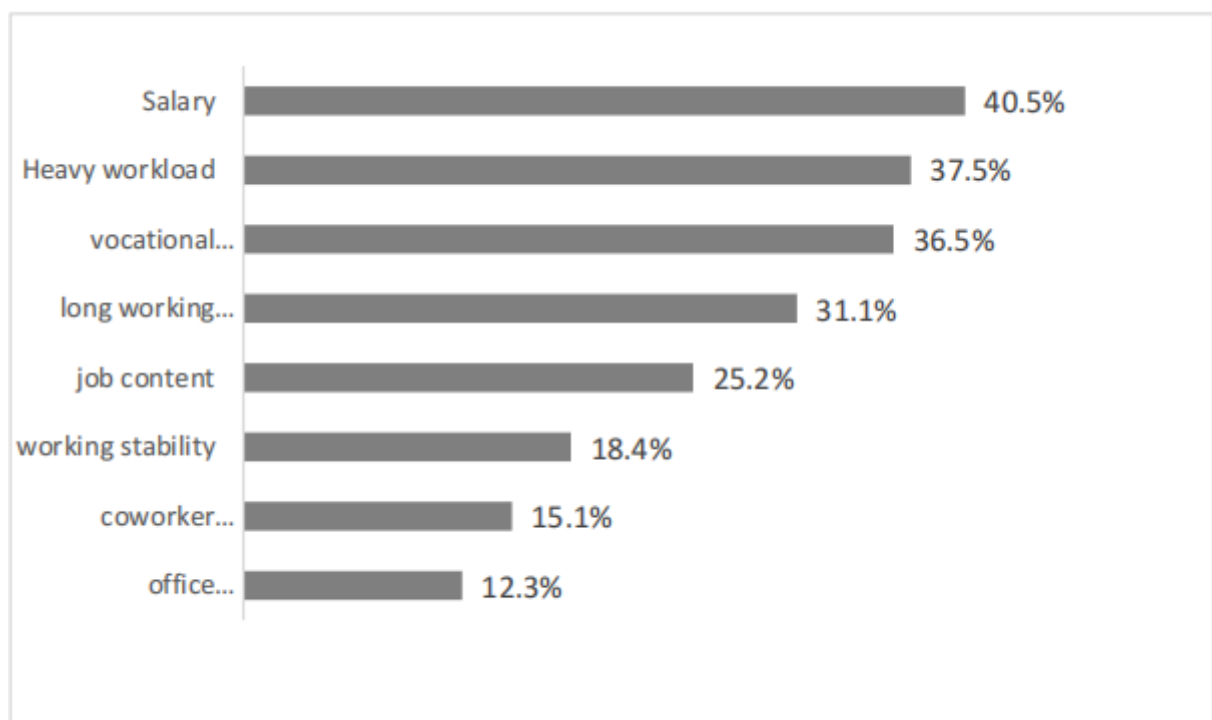


Figure 2. Work factors that have an impact on employee psychology

3.2.3 In Terms of Social and Environmental Factors, the Impact of “Social Change” Is More

Prominent

A total of 52.8% of employees believe that “social change” can impact their psychological status. Furthermore, “social pressure” and

“communication pressure” issues also significantly influence the psychological status of employees (Figure 3).

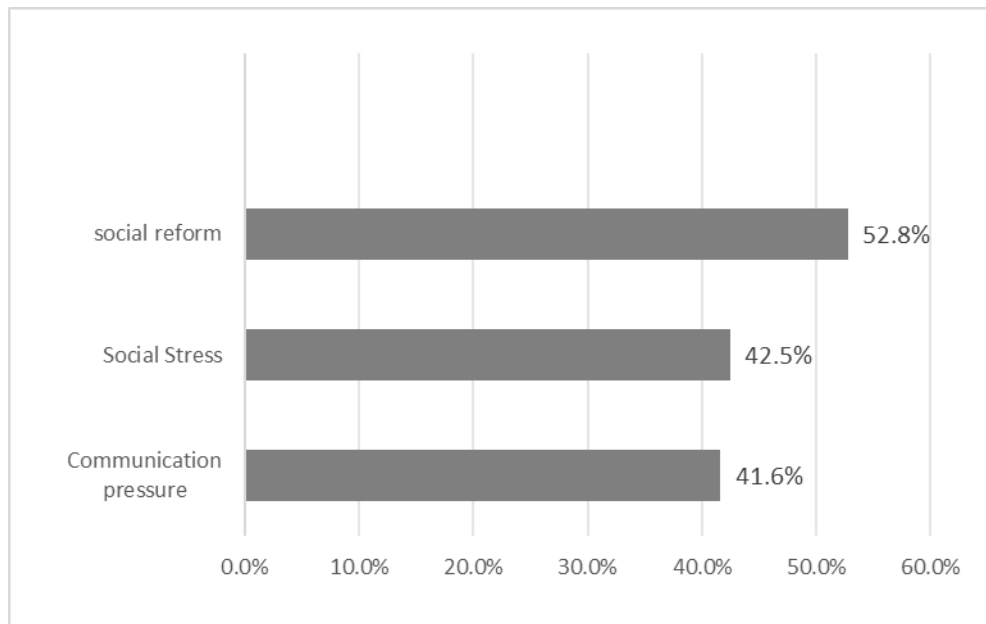


Figure 3. Social factors that have an impact on employee psychology

3.2.4 In Terms of Individual Factors, the Impact of “Physical Health” Is More Pronounced

The survey shows that 60.4% of employees believe that “physical health” can affect their

psychological status. Additionally, issues related to “mental health” and “personality traits” also significantly influence the psychological status of employees (Figure 4).

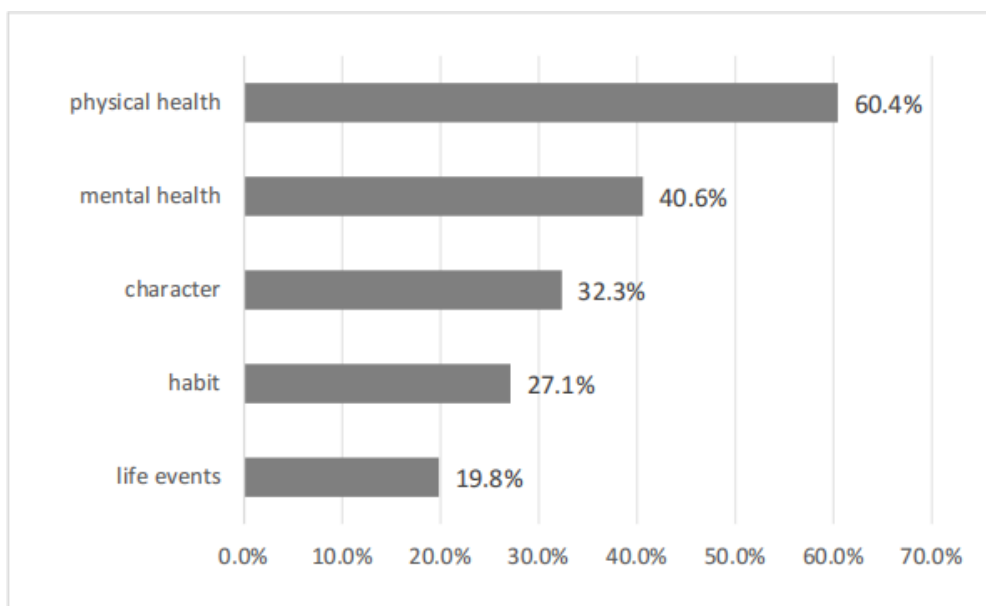


Figure 4. Individual factors that have an impact on employee psychology

4. Ways to Address Employees’ Poor Psychological State and Their Psychological

Service Needs

4.1 Ways to Address Employees’ Poor Psychological

State

The survey has shown that interpersonal connections and physical exercise are the most commonly used coping mechanisms by employees. Specifically, 58.6% of employees improve their psychological state by “communicating with family, friends, or colleagues,” while 44.4% of employees improve their psychological state through “physical exercise or workouts.”

4.2 Employees' Psychological Service Needs

Inquired whether respondents felt the need for psychological support services provided by the company or union, and 62.6% of employees expressed their desire for the company or union to offer psychological support services. Further

cross-analysis of psychological service needs among different employee groups revealed the following results:

Female employees have a greater need for psychological services.

The survey indicated that 66.4% of female employees require the company or union to provide psychological support services, while the proportion for male employees is 43.3% (Figure 5). A more specific analysis of the content of psychological service needs for female employees revealed that 45.1% of them wish to receive “regularly organized psychological health training,” which constitutes the largest share of all needs (Wang, X., Yang, S., Yin, T., Luo, M., & Li, Q., 2011).

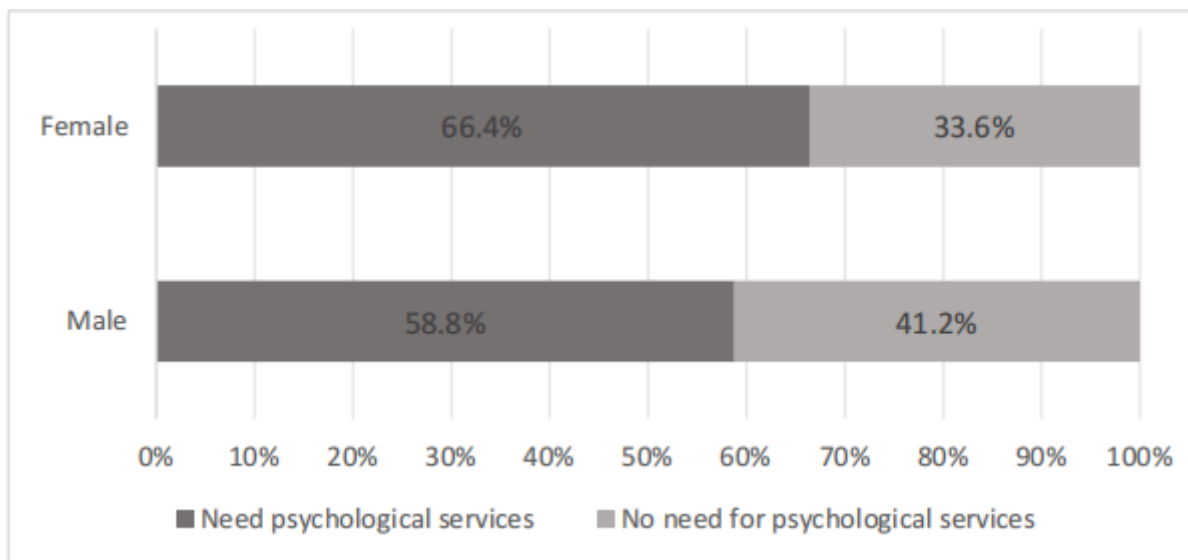


Figure 5. Comparison of the proportion of demand for psychological services between male and female

Analysis of Employees' Psychological Service Needs Based on Education Level:

Employees with a middle school education or lower exhibit a higher demand for psychological support services. The survey shows that 68.5% of employees with a middle school education or lower require the company or union to provide psychological support services, while those with a high school education have comparatively lower demands.

Married employees have a greater need for psychological services.

The survey indicates that 63.7% of married employees need the company or union to provide psychological support services, while

unmarried, divorced, or widowed employees have relatively lower demands. A more specific analysis of the content of psychological service needs among employees of different marital statuses reveals that 48.2% of married employees wish to receive “regularly organized psychological health training.” It is noteworthy that more than 40% of unmarried employees hope to receive “smart AI psychological counselling services.”

Employees with 16-25 years of work experience have a greater need for psychological services.

The survey shows that 67.4% of employees with 16-25 years of work experience require the company or union to provide psychological

support services, while employees with 6-15 years of work experience have comparatively lower demands (Figure 6). A more specific analysis of the content of psychological service

needs among employees with different lengths of work experience reveals that employees with longer work experience require more extensive health training.

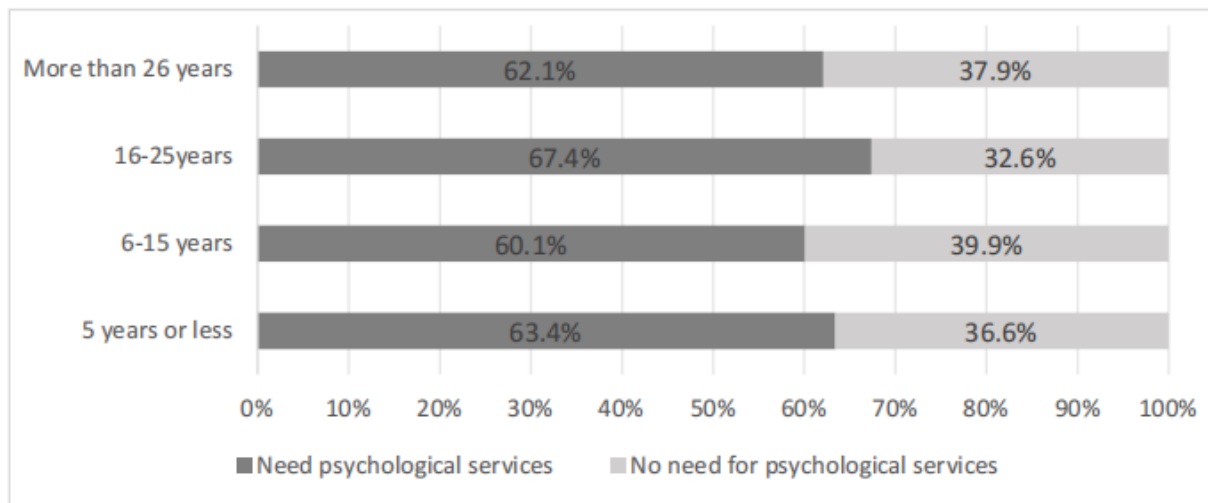


Figure 6. Demand for psychological services in different working years

5. Main Problems and Countermeasures

5.1 Major Problems

The mental health level of highly educated workers needs to be improved.

Employees with bachelor's degree or above scored 3.73 points in the self-evaluation of psychological state, which was lower than that of other employees with bachelor's degree. Further analysis of the poor psychological state of the highly educated workers found that the incidence of emotional problems such as "low mood" and "irritability" was higher. This may be because the work of highly educated workers has the characteristics of high strict requirements, and they usually need to assume more work tasks and responsibilities, and the work intensity and load are relatively high (Zhang, Z., Ding, M., Pu, X., & Xie, C., 2011).

The mental health level of unmarried workers needs to be improved.

The overall psychological status of unmarried workers scored 3.65 points, which was lower than that of married workers and divorced or widowed workers. Further analysis of the negative psychological state of unmarried workers shows that unmarried workers lack confidence in themselves and their future development (Liao, C., Mao, H., & Zhang, J., 2014). This may be because unmarried workers face marriage expectations and pressures from

different levels such as family, relatives and friends or society, and such uncertainty about future marriage and family will cause workers to doubt themselves and their future value (Leka, S., & Houdmont, J., 2014).

The mental health level of employees who have worked for 6 to 15 years needs to be improved.

It may be because employees with a working life of 6 to 15 years are in a critical period of career development and need to face more heavy work tasks and higher requirements of performance appraisal, and the level of work pressure is higher. Second, employees with 6 to 15 years of service experience also face high levels of demands in their family roles, and they need to make more efforts to maintain a work-life balance.

5.2 Countermeasures

Accurately identify and screen risk employees based on dynamic psychological survey.

Psychological survey refers to the process of systematic and scientific psychological assessment and measurement of a person or a group of people, which can obtain the basic situation of various indicators of mental health of employees. By means of data, psychological and behavioral characteristics of workers are painted to enhance the perceptibility of workers' mental states, and to provide data support and direction guidance for the follow-up work of

workers' mental health services.

Take psychological skills training as the key to actively empower employees' personal growth.

At work, professional skills are not the only factor for success in the workplace, and psychological soft skills such as emotion management, stress management, and interpersonal communication play a more important role in the actual work of employees. By carrying out professional psychological skills training, it can effectively improve the mental health literacy of employees, help employees master the ability to deal with psychological problems in a self-service manner, and promote the improvement of mental health and psychological skills of employees around.

Rely on the emotional counseling place to effectively relieve the work pressure of employees.

Only by effectively relieving the working pressure of employees, can the emotional health of employees be maintained. By integrating the digital intelligent psychological equipment such as emotional guidance, empowerment and evaluation into the service ecosystem of the offline employee care center site, the psychological ability of the employee care center site is empowered, the connotation of employee care is enriched, and the effectiveness of employee care is enhanced.

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