



Can People with Intellectual Disabilities not be Good Employees? A Survey on Psychological Capital of Students with Intellectual Disabilities in Secondary Vocational Schools

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Received: 12th June 2023

Accepted: 13th July 2023

Published: 4th August 2023

ABSTRACT

People with intellectual disabilities are the most difficult to find employment among all types of disabilities. However, their successful employment is a very beneficial thing for both individuals and society. Secondary vocational students with intellectual disabilities are the most likely candidates to develop into employees with disabilities. Paying attention to their psychological capital is helpful to improve their invisible psychological quality and employability. In this study, students with intellectual disabilities in two special education schools in Zigong, Sichuan Province, China were selected as research objects. These students were surveyed using the adapted “Psychological Capital Questionnaire for Adolescent Students” (PCQAS). The results show that the overall psychological capital level of the students with intellectual disabilities is positive; ‘Hope’ scored highest of the four dimensions; There was no significant difference in all scores for gender; In terms of grade, freshman year students scored significantly lower on ‘Resilience’ than sophomore year students in high school. After discussion, the following conclusions are reached: 1. It is feasible for secondary vocational students with intellectual disabilities to complete the psychological questionnaire on the premise of some adaptation of the questionnaire; 2. The overall psychological capital level of secondary vocational students with intellectual disabilities is not so bad as imagined. With proper education and care, they can have good mental quality; 3. Resilience is a quality that needs to be paid special attention to in the process of preparing for employment of secondary vocational students with intellectual disabilities; 4. The cultivation of resilience quality should be carried out as soon as the new students enter school; 5. Psychological intervention is an educational method that can be tried.

Keywords: Secondary vocational students with intellectual disabilities & psychological capital

INTRODUCTION

The employment rate of people with disabilities is much lower than that of their non-disabled counterparts (De, 2011; Shepard, 2019.). People with intellectual disabilities are the most disadvantaged group among all disability types when it comes to employment (Karhina et al., 2022). But it doesn't mean they don't have the right to work. Having a paid job is not only a strong personal desire for people with intellectual disabilities (Hennessey & Goreczny, 2022), but also is beneficial to the society and economy in the long run (Ellenkamp et al., 2016). Secondary vocational students with intellectual disabilities are important candidates for employees with intellectual disabilities because they are more likely to become good employees through vocational education and specialized training. However, Secondary vocational students with intellectual disabilities are a group worthy of attention but not studied much.

Luthans et al. (2007) defined psychological capital as an individual's mental state of positive development, which is characterized by: (1) Hope: stick to your goals and redirect them if necessary to achieve success; (2) Self-confidence: having the confidence to undertake and invest the necessary efforts to successfully complete challenging tasks; (3) Optimism: be positive attributions of present and future success; (4) Resilience: when beset by problems and adversity, persevere, rebound, and even transcend to achieve success. Psychological capital is considered as an application of positive orientation positive organizational behavior which applies positively oriented human resource strengths and psychological capacities that can be measured, developed and managed for performance improvement in today's workplace (Luthans & Youssef, 2004).

Psychological intervention focuses on psychological, behavioral or social factors rather than physical factor. It improves a person's healthy function by changing his or her cognition, emotions, behavior, and relationships (England et al., 2015). It is reported that psychological interventions can be used for people with intellectual disabilities, but they require a certain level of cognitive ability and literacy to participate fully (Bourne et al., 2022). Therefore, it is more effective to study students with intellectual disabilities before implementing psychological intervention, and to tailor intervention programs to their characteristics and needs (Fleming et al., 2020). This is the idea of this study.

The purpose of this study is to investigate and analyze the current situation of psychological capital of secondary vocational students with intellectual disabilities, hoping to provide reference for the

psychological intervention for them. The ultimate goal is to help students with intellectual disabilities succeed in employment.

METHODOLOGY

This study adopts the method of questionnaire to investigate the status quo of psychological capital of secondary vocational students with intellectual disabilities. This part will describe the process of investigation and data statistics.

Instruments

Psychological Capital Questionnaire for Adolescent Students (PCQAS)

This study adopted the Psychological Capital Questionnaire for Adolescent Students (PCQAS) compiled by Fang (2012). The questionnaire consists of 22 items, divided into four dimensions of self-confidence, resilience, optimism and hope. The item adopts Likert six-level scoring method. The Cronbach's alpha value of the total scale was 0.90, and the Cronbach coefficients of each sub-scale were 0.71,0.73,0.88, and 0.80, respectively showing good reliability.

People with intellectual disabilities indeed have cognitive impairments, language difficulties, limited comprehension and attention (Emerson et al., 2013; Thirion-Marissiaux & Nader-Grosbois, 2008). But it's not impossible for them to complete a self-report which need to pilot testing and modifications to make it more appropriate for this population (Gilmore et al., 2022). Therefore, in this study, the PCQAS was adapted as follows:

1. Obtain the consent of the original author of the questionnaire for adapting.
2. On the premise of not changing the four dimensions of the original questionnaire, some expressions which are easy to cause ambiguity or the students with intellectual disabilities have difficulty in understanding are changed. For example, 'I like to solve the problems in my study' was changed to 'I am not afraid of learning difficulties', 'I can recover quickly from a shock.' was changed to 'I'm not afraid all the time', 'I'm comfortable with bad results.' was changed to 'If I fail the exam or get criticized by my parents, I won't be angry.' etc.
3. The Likert 6-point scoring system in the questionnaire was adapted to a 3-point Likert scale to better suit the students with intellectual disabilities (Fang et al., 2011). Three points are scored for

‘complete agreement’, one point for ‘partial agreement’, and zero points for ‘complete disagreement’.

4. Twenty-one students with intellectual disabilities in special schools participated in the test.

The revised questionnaire still consists of 22 items, divided into four dimensions of self-confidence, resilience, optimism and hope. The item adopts Likert three-level scoring method. The Cronbach’s alpha value of the test questionnaire is 0.841.

Participants

After obtaining the consent of teachers and parents, researchers distributed 50 questionnaires to secondary vocational students with intellectual disabilities from two special education schools in Zigong and collected a total of 46 valid questionnaires. The recovery rate of effective questionnaires was 92%. The specific composition of the questionnaire is shown in the Table 1.

Table 1: Demographic characteristics of the participants (n=46)

Variable	Categories	Number	Proportion (%)
gender	Boy	26	56.52%
	Girl	20	43.48%
grade	Grade 1	26	56.52%
	Grade 2	20	43.48%

Note: The students with intellectual disabilities are in mixed-age classes, with the overall age ranging from 14 to 20 years old and the average age being 16. Age doesn't make a variable; Since senior year three students leave school for practice, the variable grade only includes grade one and grade two.

DATA ANALYSIS

In order to understand the status quo of psychological capital of secondary vocational students with intellectual disabilities, descriptive statistical analysis of psychological capital questionnaire scores will be carried firstly. Secondly, the differences of demographic variables of gender and grade in the psychological capital questionnaire will be examined. Finally, the internal dimensions of the questionnaire and the correlation with the score will be analyzed.

RESULTS

1.Descriptive statistics of psychological capital scores of secondary vocational students with intellectual disabilities

It can be seen from Table 2 that the average psychological capital score of secondary vocational students with intellectual disabilities is 85.37, which is higher than the average level. The ‘Hope’ dimension scored significantly higher than the other three dimensions.

Table 2: Psychological capital scores of secondary vocational students with intellectual disability

	Min	Max	M	SD
Hope	10	57	39.26	11.08
Optimism	6	24	15.74	4.78
Self-Confidence	4	25	14.20	4.83
Resilience	4	24	16.20	4.12
PsyCap	29	119	85.37	18.08

2.Comparison of psychological capital among different genders of secondary vocational students with intellectual disabilities

As can be seen from the P value in Table 3, there is no significant difference between boys and girls in total scores and scores of all dimensions. They have similar levels of psychological capital.

Table 3: Psychological capital scores of secondary vocational students with intellectual disability of different genders (M±SD)

	boy	girl	t	P
Hope	38.31±10.26	40.50±12.22	-0.660	0.513
Optimism	16.54±4.93	14.70±4.50	1.304	0.199
Self-Confidence	14.12±4.09	14.30±5.77	-0.118	0.906
Resilience	17.12±3.91	15.00±4.18	1.769	0.084
PsyCap	86.08±16.51	84.45±20.35	0.300	0.766

3. Comparison of psychological capital among different grades of secondary vocational students with intellectual disabilities

From the comparison of grades, grade one and grade two have significant differences in the dimension of resilience ($P < 0.05$). The mental resilience of grade one's students is obviously lower than that of grade two's students. See Table 4 for details.

Table 4: Comparison of scores of psychological capital of students in different grades

	Grade1	Grade2	t	P
Hope	39.18±12.33	39.39±9.15	-0.066	0.948
Optimism	15.54±4.69	16.06±5.04	-0.356	0.723
Self-Confidence	14.36±5.35	13.94±4.04	0.303	0.764
Resilience	15.11±4.39	17.89±3.07	-2.526	0.015
PsyCap	84.14±20.6	87.28±13.62	-0.622	0.537

4. The correlation between the four dimensions of the scale and the total score

Pearson correlation analysis method was used to analyze the correlation of each dimension of psychological capital questionnaire. It can be seen that each dimension is significantly positively correlated with the total score. The resilience dimension is significantly correlated with hope and optimism respectively.

Table 5: Correlation analysis of each dimension of psychological capital

	1	2	3	4	5
1 Hope	—				
2 Optimism	0.259	—			
3 Self-Confidence	0.286	0.275	—		
4 Resilience	0.560**	0.329*	0.161	—	
5 PsyCap	0.885**	0.572**	0.549**	0.703**	—

Note: * $P < 0.05$ ** $P < 0.01$

DISCUSSION

1. Current characteristics of psychological capital of secondary vocational students with intellectual disabilities

From the total score of the questionnaire on psychological capital of adolescents, the highest score of secondary vocational students with intellectual disabilities is 119, the lowest score is 29, and the average score is 85.37, which is far higher than the median value of the score distribution, indicating that the psychological capital of these students is relatively positive on the whole. Yes, you read that right. People with intellectual disabilities are not unhealthy as we think. On the contrary, they may be hopeful, optimistic and cheerful. They scored significantly higher on hope than on self-confidence, optimism and resilience. What to make of such results?

The apparent connection between hope and health is well established (M. W. Scioli, 2011; Snyder, 1995, 2002). The link between hope and overall level of psychological capital was also seen in this study. According to Scioli et al. (1997) hopeful individuals, who experience chronic illness or aversive life situations, as individuals with intellectual disabilities experience more health. In positive psychology, hope is seen as a state of positive motivation produced by the individual based on the experience generated by the intersection of the agent of success (the level of energy towards the goal) and the path (the plan to achieve the goal) (Luthans & Youssef, 2004). Why do students with intellectual disabilities still have better performance of hope state? One possible reason is that entering the vocational education stage of high school, these students have been stressed that their task is to learn skills in order to find a job. They tend to focus on this goal, whether it is emphasized by the outside world or the scope of their own thinking. Another possible reason is that they are lucky enough to have hopeful parents. Because hope is a resilient factor for parents of children with intellectual disabilities. This factor has an impact on the well-being of the entire family through the parents' behavior toward their children (Lloyd & Hastings, 2009).

Nevertheless, from another perspective, the psychological capital performance of students with intellectual disabilities needs to be treated with caution. Their psychological capital status should be different from that of the normal population because their cognitive characteristics may affect their evaluation of themselves and external things. The adherence to the goal and the choice of the path of the individual with intellectual disabilities are single, not flexible, and not the result of comprehensive consideration. But this feature is an advantage that distinguishes them from other

types of employees with disabilities. Actually workers with intellectual disabilities were able to contribute most successfully when work tasks were tailored to their skills and they were provided with clear job expectations (Lysaght et al., 2012).

According to the results of this study, the resilience of students in grade one is significantly worse than that of students in grade two. There was no significant difference by gender. In positive psychology, resilience is an individual's ability to recover from significant difficulties or dangerous situations and the will power to rise above the mundane (Luthans & Youssef, 2004). At the heart of resilience is positive adaptation (Fletcher & Sarkar, 2013). Freshmen in high school have just bought into a new environment and are faced with new learning requirements. Adaptation becomes their biggest challenge. For students in the first grade, school education has not been fully carried out. They have yet to be taught how to overcome difficulties through special education and training.

2. Suggestions on psychological capital intervention for secondary vocational students with intellectual disabilities

a. Strengthening the resilience training of secondary vocational students with intellectual disabilities.

Luthans (2002) described the resilience as a positive psychological capacity that enables people to return to their normal and healthy state by recovering in negative situations caused by a problem, uncertainty, conflict, mistake or increased responsibility. Thus, the concept represents an individual's capacity for positive adaptation (Sinclair & Wallston, 2004). According to the results of this study, resilience is significantly correlated with optimism and self-confidence respectively. Freshmen in high school just enter vocational education and face a new educational environment, which is a great challenge to them. Employment-oriented vocational education requires that they have to learn and master a skill (Carlson, 2022). If students' resilience can be cultivated consciously and purposefully from the beginning of school, it will help them adapt to new roles more quickly.

b. Helping students deal with stigmatization.

In fact, stigmatization of people with intellectual disabilities is widespread, include their self-stigma. In lower income countries more derogatory terms such as 'mentally retarded' but also 'retard', 'mad' and 'fool' still appear to be in common use. In higher income countries more progressive or acceptable terms such as 'intellectual disability' were in common use, but it can't

be ruled out that very derogatory terms were still widely used (Scior et al., 2020). The World Report on Disability (World Health Organization 2011) noted that people with intellectual disabilities (ID) are one of the most discriminated against groups of people with disabilities. They are considered unable to use the Internet safely (Chiner et al., 2022), not being able to raise their children well just as they have received adversity and injustice from their families (McConnell et al., 2022). However, some studies pointed out that employees with ID are usually stable, reliable and competent employees who represent a potentially valuable resource of the labor force (Olson et al., 2001). ID workers even contribute on a social level -- creating a culture that humanizes the workplace and helps workers connect socially (Lysaght et al., 2012). Rejecting such stigmatization is one of the educational tasks of schools, and it is also a necessary way for students with intellectual disabilities to transition from school to society.

c. Ways to try psychological intervention in education.

Psychological intervention methods have been applied to people with intellectual disabilities (Croom et al., 2021a; Fleming et al., 2020; Goad & Parker, 2021; Xu et al., 2022). The cultivation of resilience and other psychological factors is not a traditional course teaching can be completed successfully. Educators should explore new educational methods to cultivate the invisible mental quality of reserve employees with intellectual disabilities.

Significance

This is a bold attempt to demonstrate that it is possible for people with intellectual disabilities to complete self-assessment. The results of the survey do reflect some performance of psychological capital of students with intellectual disabilities in secondary vocational schools. By understanding the psychological state of students with intellectual disabilities, educators can clarify the direction and focus of education. An education plan based on survey has the potential to become a tailored individual educational program. Only education that is more in line with the actual situation and needs of students with intellectual disabilities can help them move transit from school to society successfully.

Limitations

Firstly, the sample size is limited. Secondary vocational students with intellectual disabilities are a relatively small group, there are some difficulties in sampling. This results in a limited sample

size. Secondly, the research methods are limited. Although it is feasible to conduct questionnaire survey for students with intellectual disabilities by means of self-report, it may be more beneficial to grasp the real situation of students if other research methods can be combined. Acquiescence and socially desirable responding may be more likely to occur when individuals are questioned verbally in a face-to-face situation (Esan et al., 2015). Finally, the generalization of results has limitations. This study was conducted in a certain city in southwest of China, which cannot represent the situation of more regions. Therefore, the generalization of the results needs to be confirmed by a larger sample size.

CONCLUSION

1. It is feasible for secondary vocational students with intellectual disabilities to complete the psychological questionnaire on the premise of some adaptation of the questionnaire.
2. The overall psychological capital level of secondary vocational students with intellectual disability is not so bad as imagined. With proper education and care, they can have good mental quality.
3. Resilience is a quality that needs to be paid special attention to in the process of preparing for employment of secondary vocational students with intellectual disabilities.
4. The cultivation of resilience quality should be carried out as soon as the new students enter school.
5. Psychological intervention is an educational method that can be tried.

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