

# Review of Research on Psychological Capital of Secondary School Students: Connotation, Current Status of Research and Future Development Trend

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## Abstract

Psychological capital refers to the positive psychological strength shown by individuals in the process of growth and development, which helps them solve problems more effectively and achieve growth. As secondary school students are in the critical stage of physical and mental development, psychological capital can help them pass through this stage more smoothly, improve their mental health, enhance their interpersonal skills, and make them more happily engaged in learning and life. The paper uses the literature research method to understand the trajectory of the development of secondary school students' psychological capital, clarify the connotation of secondary school students' psychological capital, the current status of the research and the future development trend, in order to provide certain reference for the development and intervention of secondary school students' psychological capital.

## Keywords

Psychological capital of secondary school students; Literature research method; Connotation; Current research status; Future development trend.

## 1. Introduction

The secondary school stage is a key stage in the growth process of adolescents, the body and mind are facing blistering changes, and the individual is gradually forming an independent and stable personality in the interaction with the outside world, but the physical and mental development of the individual is not smooth sailing during this period. In recent years, some studies have shown that the mental health of secondary school students in China is not optimistic at present, and there are various psychological problems, which are mainly manifested in unstable emotions, high learning pressure[1], and high positive detection rate of mental health[2][3].

As a special and powerful psychological resource, psychological capital is different from 'human capital' and 'social capital' in the general sense. It not only promotes individual psychological health [4], but also has a significant positive predictive effect on academic performance [5].

In recent years, with the development of positive psychology, a large number of researchers have started the research on the psychological capital of secondary school students and obtained certain results, mainly in the structure and measurement of the psychological capital of secondary school students, antecedent variables, the role of the mechanism, the development of the strategy of the research, this paper aims to summarise the research results of the psychological capital of secondary school students, and the future development of the direction of the future development of the field, with a view to providing a certain reference for future researchers. This paper aims to summarise the existing research results on the psychological capital of secondary school students and to look forward to the future development of this field in order to provide future researchers with certain reference.

## 2. Literature Search Strategy

The literature of this study originated from the China Knowledge Network (CNKI), and the search period was from 2012 to 2024. Using the advanced search function and using 'secondary school students' and 'psychological capital' as the search topics, 480 academic papers were retrieved. 480 academic papers were retrieved. During the screening process, papers unrelated to the psychological capital of secondary school students and papers with high repetition rates were deleted. The number of papers retained was 466, of which 19 were from Chinese core journals. This paper applies the method of bibliography to collate, summarize and refine the existing research results, comprehensively analyse the research progress, hotspots and development trends of the psychological capital of secondary school students in China, and make future prospects.

## 3. Connotation of Psychological Capital of Secondary School Students

In 2004, Luthans et al. proposed the concept of positive psychological capital, or Psy Cap for short, under the framework of positive psychology and positive organisational behaviour. Luthans pointed out that psychological capital is an important psychological resource of an individual, and it is the core psychological In 2011, Dong Zhenhua first began to study the psychological capital of secondary school students in his dissertation [7]. At this point, the research on the psychological capital of secondary school students in China was officially kicked off.

According to Luthans (2004), psychological capital consists of four elements: hope, optimism, resilience and self-efficacy. The four elements are typical representations of the elements of psychological capital in the state category, which are as follows: persistent pursuit of goals and the ability to flexibly adjust strategies to achieve goals even if unsuccessful (hope); people's positive and upward perception of and reaction to various events and situations in their lives, which is an enduring state of mind (optimism); the ability to recover or recover from adversity, conflict, and failure (resilience); and the ability of an individual to complete a particular behaviour (self-efficacy). Luthans' four-dimensional structure has gained general acceptance amongst academics. Based on this structure, Luthans et al. (2007) developed a 24-item PCQ questionnaire [6], but this scale was developed on the basis of foreign organisational behavioural science, which has a narrow scope of application and cannot be administered on a large scale in China.

Based on the full consideration of the differences between Chinese and Western cultures, Ke Jianglin and other scholars (2009) studied the composition of psychological capital, divided it into 'transactional psychological capital' and 'interpersonal psychological capital', and developed a local 63-item psychological capital measurement tool. A 63-item local psychological capital measurement tool was developed. The results of the study showed that the instrument has good reliability and validity [8]. This has made an important contribution to the study of localisation of psychological capital and has been supported by some scholars. However, the scale was developed on the basis of using business technicians and managers as research subjects and is not suitable for studying the psychological attributes of secondary school students.

In order to develop a more localised psychological capital questionnaire with a wider scope of application, Chinese scholar Zhang Guo (2010) compiled the Positive Psychological Capital Questionnaire (PPQ) based on Luthans' four-dimensional model with four factors and 26 items, which has been recognised and cited by a wide range of scholars in later studies due to its good reliability and wide scope of application [9], and is also widely popular in secondary school students' psychological capital research is also popular.

Xu Mingjin (2015) and others, on the basis of literature review, interview and questionnaire, carried out exploratory factor analysis and validation factor analysis on junior high school students, and made a psychological capital questionnaire specifically for junior high school students, including the five factors of self-control, forgiveness, hope, self-confidence and optimism, composed of a total of 22 items, and the questionnaire has good reliability and validity after analysis [10], but this scale has not been widely used.

Through the collation and analysis of the literature, scholars found that most of the studies preferred to use the Positive Mental Capital Questionnaire prepared by Zhang Gao, whose reliability and validity have been verified in a large number of studies, with a wider range of applications, and which has been recognised by a large number of scholars and researchers. However, we should not stop here, in the future research, there is a need to develop a psychological capital scale for secondary school students, in order to more accurately understand the psychological capital status of secondary school students.

## **4. The Current Status of Research on Psychological Capital of Secondary School Students**

### **4.1. Antecedent Variables of Psychological Capital of Secondary School Students**

Based on the structure and measurement of the psychological capital of secondary school students, in order to improve the psychological capital of secondary school students, some studies on the antecedent variables of the psychological capital of secondary school students have been carried out and analysed, which mainly focus on the perspectives of personal characteristics, interpersonal relationships, parenting styles, and physical exercise.

In terms of personal characteristics, Liu Dan and Yang Chun took some middle school students in Mudanjiang as the survey object to investigate the current status of their psychological capital, and the results showed that the psychological capital level of junior high school students was better overall, but there were significant differences in terms of whether or not they were an only child, their place of origin, their grade level, and their academic performance [11].

In terms of interpersonal relationships, Gao Xiao-cai et al. found that factors such as cognitive reappraisal played a fully mediating role in understanding the impact of social support on positive psychological capital through a study of junior high school students [12]; Tang Huiyi and Luo Chao et al. found that interpersonal relationships had a positive predictive effect on psychological capital when they surveyed students in a high school in Guizhou Province through a questionnaire [13].

In terms of parenting styles, Luo Man, Yuan Jiu Xiong et al. surveyed students in a general high school in Hunan Province, and the results showed that parenting styles, which were significantly positively correlated with psychological capital, had a positive predictive effect on the psychological capital of high school students [14]; Zhang Effect, Xiao Shaobei found that the level of psychological capital of secondary school students could be predicted by parenting styles through the use of latent profiling techniques and questionnaires and that a reasonably good parenting style will benefit the children [15].

In terms of physical exercise, Sun Chongyong and Yang Zhongjun found in a survey of high school students that physical exercise had a positive predictive effect on psychological capital [16]; Dong Yaqi and Wang Xiaoxuan found that junior high school students could significantly improve their psychological capital level by engaging in physical exercise, and at the same time, this enhancement helped to strengthen their self-control ability, which indirectly reduced the incidence of school bullying [17].

In summary, the existing literature has a more comprehensive study on the influencing factors of psychological capital of secondary school students. In the study of personal traits such as only child, place of birth, grade, academic achievement, etc., it was found that a large amount of data proved that these personal traits have a significant impact on the level of psychological capital of secondary school students, and we can use this as a basis for providing psychological capital interventions for the corresponding groups. Second, through the study of external influences, such as interpersonal relationships, parenting styles, physical exercise, etc., we have expanded the academic community's understanding of the mechanism of psychological capital formation in secondary school students, providing a theoretical basis for psychological capital interventions and pointing out the way forward.

Nevertheless, most of the existing studies lack systematic and in-depth; the scope of the research object is limited, and the accuracy and generalisation of the research results are insufficient, leading to differences in the findings of different studies on the same variable; the research tools are too single, mostly questionnaire measurements, and the reliability of the data is yet to be considered, and the research on the antecedent variables of secondary school students' psychological capital still has a long way to go.

## **4.2. The Mechanism of the Role of Psychological Capital of Secondary School Students**

The current research mainly considers the psychological capital of secondary school students as independent, mediating and moderating variables in order to explore its mechanism of action. A large body of literature focuses on the impact of psychological capital on the psychological, academic and behavioural performance dimensions of secondary school students.

### **4.2.1. Psychological Dimension**

In his study of career maturity of high school students, Chen Binghong found that psychological capital played a fully mediating role between career maturity and psychological health of high school students [18].

Xu Yaqi conducted a study with 457 junior high school students from several rural middle schools in a county in Henan Province and found that psychological capital has a positive predictive effect on mental health, and the higher the level of psychological capital, the better the mental health [19].

Yang Xinguo and Xu Mingjin investigated more than three hundred students in four junior high schools in Guangxi and found that the subjective well-being of left-behind middle school students was affected by negative life events, and the degree of the effect could be reduced by good psychological capital [20].

When exploring adolescents' subjective well-being through cross-sectional and longitudinal studies, Jin Ziqi found that in cross-sectional studies, psychological capital mediated the relationship between balanced time insight and subjective well-being; in longitudinal studies, psychological capital played a delayed mediating role in the relationship between balanced time insight and subjective well-being, with stability across time [21].

Liu Xuan and Qu Xiaoli found a positive correlation between sense of meaning of life, happiness and psychological capital in their study of Jiangsu adolescents [22].

### **4.2.2. Academic Level**

Zhou Guowei, in a regression analysis of junior high school students' academic input, found that 37% of the variance in academic input could be explained by junior high school students' positive psychological capital [23].

Hong Lingzhi and Wei Mingzhu found that there was a significant positive correlation between psychological capital and learning input; psychological capital played a fully mediating role between rough parenting and learning input [24].

In a study of Korean junior high school students, Chen Caoji and Yan Xiuying found that there was a significant correlation between psychological capital and the level of self-regulated learning, and that psychological capital had a positive predictive effect on self-regulated learning [25].

Chen Xiuzhu and Li Huaiyu found that psychological capital could directly predict junior high school students' academic achievement, and at the same time, self-control played a partial mediating role between psychological capital and academic achievement [26].

#### **4.2.3. Behavioural Performance Level**

In an empirical study of left-behind children's problematic behaviours, Xu Chaofan found that psychological capital could effectively predict and explain the different manifestations of left-behind children's problematic behaviours [27].

In their examination of adolescents' behaviours, He Anming and Xu Wenqing found that adolescents' motivation to use mobile phones is closely related to psychological capital, which can predict individuals' self-expressed motivation to use mobile phones [28].

In a study of junior high school students, Fang Biji and Liu Caixia et al. found that the level of psychological capital of junior high school students could be significantly predicted by life events, and the effect of life events on the psychological capital of junior high school students was mediated by coping styles [29].

Su Xiao explored school bullying among junior high school students from the perspective of the relationship between positive psychological capital and coping styles and found that junior high school students' psychological capital was closely related to coping styles, and coping styles mediated the relationship between junior high school students' positive psychological capital and school bullying [30].

Scholars collated and analysed the above research results and found that psychological capital, as an important positive psychological resource of middle school students, has an intricate mechanism of interaction with multiple variables, which is of great theoretical and practical significance for the study of middle school students' psychological capital. However, from the viewpoint of the existing studies, there are still some areas that can be improved, such as the studies are too scattered and unsystematic, lack of long-term tracking research, single research method, sample selection bias, etc. These problems lead to a lack of in-depth and comprehensive understanding of the mechanism of the role of psychological capital in secondary school students, limiting the reliability and generalisability of the research findings. In order to solve these problems, more studies with multiple levels and perspectives, combining quantitative and qualitative methods while focusing on long-term effects and individual differences, are needed to comprehensively reveal the mechanism of the role of psychological capital in secondary school students.

### **4.3. Intervention and Development Strategies for Secondary School Students' Psychological Capital**

Domestic academics have extensively explored and analysed the intervention and development of secondary school students' psychological capital, mainly through physical activities, psychological drama, online group support intervention, narrative drawing therapy, psychoeducational courses and other forms of psychological capital intervention, and these interventions have been tested to be able to enhance the level of secondary school students' psychological capital to varying degrees.

Cai Xiaodai and Liu Yuefeng conducted a 12-week experiment in order to explore the intervention effect of physical activity on the psychological capital and body self-esteem of Uyghur college students, and the results showed that moderate-intensity physical activity produced a significant intervention effect on the psychological capital and body self-esteem of Uyghur college students [31].

Li Fang explores the design and practice of psychological situational theatre in the development of secondary school students' psychological capital, aiming to provide a new educational method for secondary school education to help students better cope with various situations and challenges in their lives, and lay a solid psychological foundation for their future development [32].

Zhang Xinyu took secondary school students as the research object and implemented measurements and conducted seven online group counselling interventions for 426 secondary school students in Weifang City, Shandong Province, Tianjin City, and Shiyan City, Hubei Province, etc. The results of the study showed that group counselling programmes based on the design of psychological capital and interpersonal adaptation could effectively enhance the level of psychological capital and interpersonal adaptation of the students, and improve the subjective well-being of the students [33].

Liu Chunying used narrative drawing therapy in the form of self-developed group counselling to intervene in the self-directed learning, positive psychological capital and career construct maturity of hearing-impaired secondary school students, and the results showed that the self-developed group counselling programme was effective in improving the actual positive psychological capital, self-directed learning and career construct maturity of hearing-impaired secondary school students [34].

Based on Luthans' psychological capital intervention model, Hui-Ying Sun designed and implemented a teaching programme and experimental intervention for junior high school students' mental health education class under the psychological capital perspective, and the results showed that the junior high school students' mental health education class under the psychological capital perspective could significantly improve the psychological capital and mental health of junior high school students [35].

The development of middle school students' psychological capital has accumulated rich research results, but there are still some problems, the intervention process is separated from the family and society, and parenting is a joint responsibility of "family, school and society"; there are fewer longitudinal tracking studies on the effect of the intervention, and the sustained effect of the intervention is not clear; the intervention group is not representative, and the applicability of the results is narrower, which is not conducive to promotion. The intervention group is not representative, and the applicability of the research results is narrow, which is not conducive to promotion. In the future, researchers should pay more attention to the co-operation of 'home, school and society' and co-ordinate the resources of all parties, so as to escort the enhancement of secondary school students' psychological capital.

## **5. Future Development Trends of Secondary School Students' Psychological Capital**

In the past decade, a large number of scholars have studied the concept, dimensions, antecedent variables, outcome variables, and the mechanism of action of the psychological capital of secondary school students in China, accumulating rich research results for the academic community. A large number of studies have confirmed that psychological capital, as a kind of positive psychological energy, can play a positive role in secondary school students' learning, growth, and life. However, as a complex psychological process, the formation mechanism of psychological capital cannot be simply summarised by one or two influencing factors, and

should be explored and researched according to the characteristics of secondary school students' personalities and their environments. In the intervention of psychological capital, researchers have used sports, painting, group counselling, curriculum, narrative therapy and other means, which have achieved certain results, but the influencing factors of psychological capital are complex and diversified, and scholars believe that such an intervention is detached from the actual living place of secondary school students, which may lead to poor or unsustainable intervention effects. Therefore, in the future research on the psychological capital of secondary school students, we can focus on the different places of life of secondary school students and integrate the intervention and cultivation of psychological capital into the daily life of secondary school students.

### **5.1. Stimulating Individual Psychological Growth**

In today's diverse social context, the development of secondary school students' psychological capital increasingly highlights their individualised needs. Mental health education in schools is no longer a one-size-fits-all universal programme, but rather a precisely tailored service model. Through professional assessment, each student's unique psychological characteristics and needs are identified, and a personalised education programme is designed. One-on-one counselling is combined with group activities to provide in-depth support and promote interactive learning among peers. Close co-operation between home and school ensures that students receive multi-dimensional care and guidance. The continuous tracking and assessment mechanism, like a guardian of the soul, constantly adjusts strategies to suit the dynamic changes in students' growth. Such individualised services are like fine rain that quietly nourishes the minds of young people, helping them to move forward steadily on their journey of growth.

### **5.2. Home-school-society Co-operation**

'Home, school and society are the main activity places of secondary school students, and naturally, they are also the cradle of their psychological capital. Enhancing the level of psychological capital of secondary school students requires the joint participation of family, school and society. First of all, family is the initial place of individual life and development, and its role in the development of psychological capital of secondary school students cannot be ignored. Parents are the first teachers of their children, and their parenting style, family atmosphere, and parent-child relationship directly affect the psychological capital level of secondary school students. An equal and harmonious family atmosphere is a priceless psychological resource for secondary school students in the period of puberty and personality shaping. Secondly, school is an important activity place for secondary school students to carry out learning, interpersonal, emotional and other activities. The enhancement of secondary school students' capital should not only target at the students themselves, but also intervene in other school subjects, train teachers in psychological capital intervention, and teachers should intervene in students' psychological capital in their daily campus life through various ways, including but not limited to psychological courses, group counselling and so on. Finally, students' psychological capital is enhanced by creating a good social climate. The development of social media has increased secondary school students' perception of the whole society, and the culture and atmosphere of the times influence the formation of secondary school students' personality as well as their psychological capital. Besides, families, schools and society should strengthen cooperation and share resources to play their respective roles in the intervention of secondary school students' psychological capital.

### **5.3. Interdisciplinary Integration**

In today's society, the development of interdisciplinary integration has become a major trend. The study of secondary school students' psychological capital is not only a matter of psychology

and education, but also a matter of sociology, physiology, philosophy, or literature. The integration of psychological capital interventions for secondary school students in a wide range of subjects can increase the effectiveness of the interventions and consolidate the effects of the interventions. Through interdisciplinary cooperation, we can intervene in the psychological capital level of secondary school students in different ways. The rigorous logic contained in mathematical questions, the charm of language reflected in language articles, the humanistic feelings reflected in historical materials, and the social ecology disclosed in political current affairs, by integrating psychological capital into the teaching of these subjects, the psychological capital will burst out with a unique charm and value, and the enhancement of psychological capital will not only rely on the nourishment of these subjects, but will also be able to enhance the psychological capital of secondary school students by the teaching of these subjects. The enhancement of psychological capital not only relies on the nourishment of these subjects, but also brings nutrients to these subjects, helping to improve the academic performance of secondary school students.

#### 5.4. Dancing with Technology

In the age of intelligence, the rapid development and popularisation of big data, cloud computing and the Internet of Things (IoT) have greatly aided the study of secondary school students' psychological capital. In the past, due to the limitations of time and space as well as human and material resources, the research object and research method of secondary school students' psychological capital were relatively single, which made the research data inaccurate, the promotion of research results weak, and the research lacked depth and breadth. In the era of rapid development of artificial intelligence, we can break through the limitations of time and space, save time and effort to carry out various studies, greatly enhance the ability to collect and analyse information; the distribution of the research object is wider and more representative; we can use digital intelligence to collect individual psychological information by using a variety of research methods, and store it for the convenience of researchers to carry out cross-sectional or longitudinal research.

### 6. Summary

The study of secondary school students' psychological capital is an important area that includes aspects such as hope, optimism, resilience and self-efficacy. On the basis of theoretical research, applying the research results to the actual learning and living places of secondary school students requires the collaborative efforts of home, school and society. Parents can help their children build up psychological capital by providing love and support, establishing good communication and guiding correct values; schools can design mental health education and career guidance programmes to develop students' self-awareness and emotional regulation; and social environments can provide diversified participation opportunities and resources to help students build up correct social efficacy and emotional regulation. The development of secondary school students' psychological capital cannot be achieved without the joint efforts of families, schools and society.

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