

ПСИХОЛОГИЧЕСКИЕ ИССЛЕДОВАНИЯ В ОБРАЗОВАНИИ

Оригинальная статья / Original paper

doi:10.17853/1994-5639-2024-3561-8054



Educational psychology for the effective management of medical-psycho-pedagogical centres: a correlation study

A. Kasmi¹, B. Touri²

Hassan II University, Casablanca, Morocco.

E-mail: ¹aziz.kasmi.20@gmail.com; ²touribouzekri@gmail.com

✉ aziz.kasmi.20@gmail.com

Abstract. *Introduction.* Educational psychology focuses on the psychological aspects of learning and teaching to optimise education by understanding how individuals develop skills and acquire knowledge in an educational context. *Aim.* The study aims to understand how educational psychology can help the effective management of medical-psycho-pedagogical centres (CMPPs) and to identify the links and synergies between the principles of educational psychology and the practice of managerial aspects within such centres. *Research methodology and methods.* The authors used a quantitative methodology based on a non-experimental correlational study. The sample included 100 CMPPs in the Ile-de-France region. The directors of these centres were invited to complete the questionnaire hosted on the Google Forms platform. The results were processed using IBM SPSS 29. *Results and scientific novelty.* Of the six relationships studied, the results revealed four significant relationships between the “psychology of education” variable and managerial aspects, namely team structure and management, quality and safety of care, patient data management and interprofessional cooperation. The above-mentioned relationships represent 80% of the significant relationships between educational psychology and managerial aspects. The scientific novelty of the research lies in examining the relationship between educational psychology and managerial dimensions, providing a clear vision of the essential role of educational psychology in the management of CMPPs. *Practical significance.* These results underline the importance for each country of integrating the principles of educational psychology into the development of their CMPPs. This is particularly crucial for Morocco, in alignment with the 2015–2030 strategic vision to establish these centres.

Keywords: educational psychology, management, health psychology, disabled children, interprofessional cooperation

Acknowledgements. The authors thank the social medical directors of CMPPs and all other people who contributed to the success of this research.

For citation: Kasmi A., Touri B. Educational psychology for the effective management of medical-psycho-pedagogical centres: a correlation study. *Obrazovanie i nauka = The Education and Science Journal*. 2024;26(7):142–161. doi:10.17853/1994-5639-2024-3561-8054

Педагогическая психология для эффективного управления медико-психолого-педагогическими центрами: корреляционное исследование

А. Касми¹, Б. Тури²

Университет Хасана II, Касабланка, Марокко.

E-mail: ¹aziz.kasmi.20@gmail.com; ²touribouzekri@gmail.com

✉ aziz.kasmi.20@gmail.com

Аннотация. *Введение.* Психология образования фокусируется на психологических аспектах обучения и преподавания с целью оптимизации путем понимания того, как люди развивают навыки и приобретают знания в образовательном контексте. *Цель исследования* – понять, как образовательная психология может помочь эффективному управлению медико-психолого-педагогическими центрами, и выявить связи и синергию между принципами образовательной психологии и практикой управленческих аспектов в рамках таких центров. *Методология и методы исследования.* Авторы использовали количественную методологию, основанную на неэкспериментальном корреляционном исследовании. Выборка включала 100 медико-психолого-педагогических центров в регионе Иль-де-Франс. Для сбора информации директорам этих центров было предложено заполнить анкету, размещенную на платформе Google Forms. Результаты были обработаны с помощью IBM SPSS 29. *Результаты и научная новизна.* Из шести изученных отношений результаты выявили четыре значимые взаимосвязи между переменной «психология образования» и управленческими аспектами, а именно структура и управление командой, качество и безопасность медицинской помощи, управление данными пациентов и межпрофессиональное сотрудничество. Указанные отношения составляют 80 % существенных связей между педагогической психологией и управленческими аспектами. Научная новизна исследования состоит в изучении связи между педагогической психологией и управленческими аспектами, обеспечивая четкое видение важной роли педагогической психологии в управлении медико-психолого-педагогическими центрами. *Практическая значимость.* Результаты исследования подчеркивают важность для каждой страны интеграции принципов педагогической психологии в развитие своих медико-психолого-педагогических центров. Это особенно важно для Марокко в соответствии со стратегическим видением создания этих центров в 2015–2030 годы.

Ключевые слова: психология образования; менеджмент; психология здоровья; дети-инвалиды; межпрофессиональное сотрудничество

Благодарности. Авторы благодарят директоров социальных медицинских учреждений и всех, кто внес свой вклад в успешное проведение данного исследования.

Для цитирования: Касми А., Тури Б. Педагогическая психология для эффективного управления медико-психолого-педагогическими центрами: корреляционное исследование. *Образование и наука.* 2024;26(7):142–161. doi:10.17853/1994-5639-2024-3561-8054

Psicología educativa para la gestión eficaz de los centros médicos psicopedagógicos: un estudio de correlación

A. Kasmi¹, B. Touri²

Universidad Hassan II, Casablanca, Marruecos.

E-mail: ¹aziz.kasmi.20@gmail.com; ²touribouzekri@gmail.com

✉ aziz.kasmi.20@gmail.com

Abstracto. *Introducción.* La psicología educativa se centra en los aspectos psicológicos del aprendizaje y la enseñanza con el objetivo lograr una optimización mediante la comprensión de cómo las personas desarrollan habilidades y adquieren conocimientos en un contexto educativo. *Objetivo.* El propósito del estudio es tener una comprensión suficiente respecto a cómo la psicología educativa puede ayudar a la gestión eficaz de los centros médicos psicopedagógicos, e identificar conexiones y sinergias entre los principios de la psicología educativa y la práctica de los aspectos de gestión dentro de dichas entidades. *Metodología, métodos y procesos de investigación.* Los autores utilizaron una metodología cuantitativa basada en una investigación correlacional no experimental. La muestra incluyó 100 centros médicos psicopedagógicos de la región de Ile de France. Para recopilación de la información, se pidió a los directores de estos centros que rellenaran un cuestionario colgado en la plataforma Google Forms. Los resultados se procesaron utilizando IBM SPSS 29. *Resultados y novedad científica.* De las seis relaciones analizadas, los resultados revelaron cuatro relaciones significativas entre la variable de la psicología educativa y los aspectos gerenciales, a saber: la estructura y gestión del equipo, la calidad y seguridad de la atención, la gestión de datos de los pacientes y la colaboración interprofesional. Estas relaciones representan el 80% de las conexiones significativas entre la psicología educativa y los aspectos de gestión. La novedad científica del estudio radica en el estudio de la conexión entre la psicología educativa y los aspectos de gestión, aportando una visión clara del importante papel de la psicología educativa en la gestión de los centros médicos psicopedagógicos. *Significado práctico.* Los resultados de la investigación enfatizan la importancia para cada país de integrar los principios de la psicología educativa en el desarrollo de sus centros médicos psicopedagógicos. Esto es particularmente importante para Marruecos, en consonancia con la visión estratégica para el establecimiento de estas instituciones entre 2015 y 2030.

Palabras claves: psicología educacional, gestión, salud mental, niño discapacitado, colaboración interprofesional

Agradecimientos. Los autores agradecen a los directores de las instituciones sociosanitarias y a todos los que contribuyeron al éxito de este estudio.

Para citas: Kasmi A., Touri B. Psicología pedagógica para la gestión eficaz de los centros médicos psicopedagógicos: un estudio de correlación. *Obrazovanie i nauka = Educación y Ciencia.* 2024;26(7):142–161. doi:10.17853/1994-5639-2024-3561-8054

Introduction

The effective management of medical-psycho-pedagogical centres (CMPPs) requires a holistic approach, integrating both the principles of educational psychology and the tenets of management. As essential pillars of psychological and pedagogical support for children and adolescents, CMPPs are at the crossroads of educational, psychological, and organisational issues [1].

This article explores the convergence between educational psychology and aspects of management within CMPPs, highlighting the importance of an integrated approach to optimise results and promote the well-being of beneficiaries.

According to S. Morel, educational psychology is a branch of psychology that focuses on the scientific study of learning processes and human development, within Medical-Psycho-Pedagogical Centres (CMPPs), which are structures specialised in the assessment and management of psychological disorders and learning difficulties in children [2].

It is currently not possible for children with disabilities to receive mainstream, inclusive, high-quality education [3]. With varying percentages depending on the nation, most countries still educate children with disabilities in special schools that serve a range of special needs (World Health Organization, 2011) [4]. Furthermore, it is common for students with special needs and disabilities to graduate from school lacking the necessary skills. In accordance with R. Bourqia, incorporating children with disabilities into the general education system is the goal of the Moroccan Minister of National Education, Preschool and Sports' 2015–2030 strategic vision [5].

In agreement with S. R. Wong and G. Fisher, educational psychology offers a theoretical framework and practical tools for understanding learning processes and the affective, cognitive, and social needs of learners within CMPPs [6]. H. Ismajli, C. David-Ferdon et al. emphasise the importance of pedagogical differentiation, considering individual learning styles and adapting interventions to meet the specific needs of children and adolescents in difficulty [7, 8]. At the same time, G. R. Ferris, R. V. Aguilera et al. note that aspects of management within CMPPs include coordinating human resources, planning educational and therapeutic activities, and managing organisational dynamics [9, 10].

Effective management of multi-disciplinary teams, inter-professional communication and the implementation of problem-solving strategies are all key elements of management in this specific context. This article examines how educational psychology can inform management practices within CMPPs, and vice versa. It explores the synergies between these two fields, highlighting their impact on the quality of services offered, user satisfaction and the well-being of professionals working in these structures.

In summary, our study aims to explore the interconnections between educational psychology and management within CMPPs, highlighting the importance of an integrated approach to meeting the complex needs of children and adolescents in psychologically and educationally vulnerable situations [11, 12].

Background

- Educational psychology is of great importance in CMPP.

Objective of the study:

- To study the impact of managerial aspects on educational psychology and cooperation with families.

Problematic:

- How can management practices, such as effective communication with families and efficient coordination with the school, improve the well-being and outcomes of children in CMPP care?

Research questions:

- How does the way CMPP manage structure, team and patient data impact educational psychology practices and therapeutic outcomes for children?
- How do quality and safety policies impact the effectiveness of psychological and educational interventions, as well as children's therapeutic and educational outcomes in CMPP?
- How does collaboration between professionals, including communication and coordination with the family and school, foster improved educational psychology practices in CMPP?

Hypotheses:

- Good organisational and team management, as well as rigorous management of patient information, are positively linked to the effectiveness of educational psychology practices and to improved therapeutic and educational outcomes for children.
- The implementation of rigorous policies on quality and safety of care, combined with optimal accessibility and continuity of services, helps to improve therapeutic and educational outcomes for children in CMPP.
- Better collaboration between professionals, including effective communication and coordination with the family and school, is positively linked to improved planning, evaluation and effectiveness of psychological and educational interventions in CMPP.

Literature Review

According to L. Pomytkina, L. Moskalyova et al., educational psychology did not come out of nowhere. Nor was it born overnight. On the contrary, the creation of a branch of psychology dedicated to schoolchildren is the fruit of a very long gestation period, some traces of which can be found in the (albeit recent) history of ideas [13].

Child psychology developed late in the history of the human sciences, probably because childhood – as we know it today – was only belatedly distinguished from the other stages of life. Even more recently, children have been identified as beings with specific needs. From the Renaissance to the end of the 18th century, pedagogues were confronted with children's difficulties in learning the basics, and it was only then that childhood began to be seen as distinct from adulthood. Until the end of the Ancien Régime, childhood was seen as the age of dependence on maternal care. Tightly swaddled for easier transport, children followed their parents as they moved from town to country, from room to room in the house. Hanging from a peg, infants and toddlers assisted with domestic chores, before later performing some of the simplest tasks, until they reached the age of literacy [14].

According to A. Guillaumin, educational psychology is regarded as a strategic science. It first appeared in relation to educational policies that were put into place in Europe and the United States between 1870 and 1913. A. Guillaumin maintains that through historical analysis, we can identify three tactics. Neo-Herbartian pedagogy

placed a high importance on education; the manipulation of representations through mental statistics offered a means of fostering national cohesion [15]. Child Study, on the other hand, values the mechanisms through which interests are naturally regulated, and believes that national unity arises from confronting all individual differences. Mental statistics offer the means through which averages are regulated. At the start of the 20th century, this liberal approach was to change to boost national output, social life had to be rationalised and competition had to be controlled. Subsequently, educational psychology evolved into a theory of measurement and a psychology of learning that offered tools for equitable social distribution as stated by A. Miyake and N. P. Friedman [16].

R. R. Hoffman and K. A. Deffenbacher highlight that educational psychology took shape in the 19th and 20th centuries. More precisely, between 1870 and 1913, during the period that saw the introduction of the first mental statistics in Germany, and the definition of an objective psychology in the USA, with the task of predicting and controlling behaviour [17]. Education then sought to give itself a scientific foundation by applying to its own field the methods that had ensured the success of the natural sciences: the German neo-Herbartian pedagogy of T. Ziller and his disciples, the American Child-Study of G. S. Hall, experimental pedagogy and pedology are unmistakable signs of this. But it has recently been pointed out that “the content of this movement was far from constituting a coherent whole” (Depaepe, 1987). As reported by G. Cognet and F. Marty, we would like to show here that this apparent confusion of programmes and projects in fact refers to different competing and sometimes incompatible educational policies, and to the types of intervention they authorise or prescribe by [14].

R. J. Cameron asserts that finding the teaching methods and environments that best support the education of students with special needs is one of educational psychology's current challenges in this regard [18]. Educational psychology research focuses on tactics, activities, and practices that improve learning for these students, considering their unique characteristics. E. Duque, R. Gairal, S. Molina, et al. and J. Dunlosky, K. A. Rawson, E. J. Marsh noted that to create shared learning environments that support success for all, it is crucial to remember that research also focuses on strategies, actions, and programmed that benefit the learning of all students, including those whose unique characteristics make the learning process more difficult [19, 20].

Education is a vast, multi-faceted field; everyone talks about it, but not always with much relevance, and there's a lot of confusion in the language. Terms such as Psychopedagogy, school psychology, psychology applied to education, child psychology, school psychology or psychology of the school, psychology of the schoolchild, etc. are used to refer to the psychology of education. The list could be extended. G. Mialaret and L. Chepurna, D. Frolov, N. Stepanchenko et al. mentioned the fact that the interviewees have a vague idea of educational psychology is clear from this imprecision of language and confusion between disciplines or activities that cannot be superimposed [21, 22].

According to J. Lecomte, a certain vision of the human being is necessarily associated with teaching. This is why the various theoretical approaches to educational psychology are generally based on more general psychological theories. Theories of learning and education can be divided into three broad categories, depending on where the determining elements are located: in the individual himself (intellectual capacities, motivation, etc.); in the environment (teacher, family environment, teaching method, etc.); and in the environment (teacher, family environment, teaching method, etc.) [23].

The psychology of education and training generally focuses on the shortcomings of the encounter with school, teachers, other students and this medium, or some of the objects transmitted by the school. G. Lindsay mentioned that the psychologist's first objective is to diagnose as precisely as possible what is causing the impediments [24].

Thus, as stated by J.-M. Besse, the aim of educational psychology is to enable the psychologist to mobilise all possible fields of explanation to engage in a clinical approach in the sense of an individual encounter that also considers social and cultural, group and relational, intrapsychic, and cognitive aspects [25].

Materials and Methods

The methodology section of this article constitutes the methodological pillar on which the solidity of our research rests. With a view to providing a precise, in-depth response to our problem, we have developed a rigorous methodology, rooted in a scientific approach and a systematic procedure. This section will scrupulously detail the design choices made for our study, the experimental procedures implemented, the instruments used for data collection, and the analysis methods adopted. Our aim is to guarantee total transparency in our approach, enabling the scientific community to reproduce our work and assess the robustness of our results. By following this approach, we aim to establish a solid methodological foundation, reinforcing confidence in the validity of the conclusions we set out below.

1. Sample Characteristics

We used Google Forms to distribute a questionnaire we had designed ourselves. This methodological choice was made because of the geographical location of our sample and to be able to wait for them.

We conducted our survey in the region of Ile de France. We decided to focus on a judgement sample that was representative of the medico-social field and the knowledge units selected. There are one hundred centre directors in the sample. The selection of the sample was mainly based on open data in France (DATA EXTRACTED FROM THE FRENCH REGISTRY OF SOCIAL AND MEDICO-SOCIAL). Given that Ile-de-France has the highest concentration of CMPPs among the six regions of France, the sample size chosen for this study is appropriate in relation to the total number of CMPPs in this region. The validity and applicability of the findings are ensured by this selection.

2. Measuring Instrument

2.1. Ethical Considerations

Every interviewee stated that they were free to discontinue participation in the study at any time and that it was entirely voluntary. The directors of CMPP were also told that their answers would only be used for academic research and that their identities would remain anonymous.

To ensure the credibility of our study, we made on-site visits to three of the 100 Parisian CMPPs that made up our study sample. These three CMPPs were selected from those we had already contacted by e-mail. Based on their responses and bibliographical research, we created a guide (Appendix) for direct interviews with centre directors. We have simplified this guide to retain only the most pertinent questions, particularly those relating to psycho-pedagogy and managerial aspects.

2.2. Tool Validation

Our work uses a combination of two internationally approved and validated questionnaires:

- A questionnaire was created to assess the organisational development of primary care groups: it was tested in five health centres affiliated to the Association for the management of associative health centres (AGECSA) [26].

- Survey carried out in 2008 on the activity of medico-psych pedagogical centres (CMPP) in the Centre region [27].

3. Design

The quantitative approach was the best way to conduct an empirical and correlational investigation to examine the significant relationships and dependencies between educational psychology and the managerial aspects involved in health service management. As with all scientific research, the results may reveal contrasting conclusions about pedagogical and educational thinking.

4. Data Analysis Process

We opted to gather quantitative data via a questionnaire, which was subsequently subjected to an ANOVA statistical test using IBM SPSS version 29 IC, CHICAGO, and Microsoft Office Excel 365. The questionnaire responses were coded using content analysis into several useful categories. The data were coded, and then imported into SPSS version 29 after being entered into an Excel document. Owing to the non-normal distribution and ordinal categorical nature of the data, the ANOVA statistical test was selected to ensure solid and trustworthy outcomes in these circumstances.

Univariate ANOVA is commonly used where there is a single independent variable, or factor, and the objective is to assess whether different variations or levels of that factor have a measurable impact on a dependent variable.

Significant correlations were considered to examine the statistical relationship between the managerial aspects of health and the educational psychology variable. A significance level (also known as alpha or α) of 0.05 is frequently employed, signifying a 5% chance of incorrectly inferring the presence of an association. Indicating a statistically significant association is a p-value $\leq \alpha$.

After accounting for the variance explained by other variables in the model, values closer to 1 indicate a higher proportion of variance explained by a particular variable in the model. The value of eta squared ranges from 0 to 1. The following general guidelines are applied when interpreting partial eta squared values:

- .01: Small effect size
- .06: Medium effect size
- .14 or higher: large effect size

Results and Discussion

I. Descriptive analysis

Our research focuses on the correlation between educational psychology and aspects of management. These aspects refer to the management principles and practices applied by managers of medical-social establishments in the context of health care. They are an important factor in the contribution of educational psychology to the smooth running and efficiency of these health care establishments.

We have selected 6 crucial aspects of management: structure and team management, quality and safety of care, patient data management, inter-professional cooperation, accessibility and continuity of care, and continuing education.

The following factors were taken into consideration when choosing these variables:

- Theoretical importance: the criteria applied match the primary facets of health service administration. Theoretically speaking, they are significant.
- Research objectives: the criteria we selected were in line with our goals for the study and were determined by what we intended to comprehend and analyze.
- Practical relevance: the selected criteria are likely to have important practical implications for health care and management. This study enables us to provide valuable information to healthcare managers in Morocco.

I. Exploratory Factor Analysis

The following tables show the results obtained.

Table 1

Results of the ANOVA statistical test between the educational psychology variable and the managerial aspects of health

Health management aspects		Sum of Squares	Df	Mean Square	F	Sig.
Structure and team management	Between groups	0.376	6	0.063	3.298	0.006
	Within groups	1.558	82	.019		
	Total	1.934	88			
Quality and safety of care	Between groups	1.004	6	0.167	3.302	0.006
	Within groups	4.155	82	.051		
	Total	5.159	88			

Patient data management	Between groups	0.529	6	0.088	2.988	0.011
	Within groups	2.422	82	.030		
	Total	2.952	88			
Inter-professional cooperation	Between groups	0.791	6	0.132	2.400	0.035
	Within groups	4.502	82	0.055		
	Total	5.293	88			
Accessibility and continuity of care	Between groups	0.054	6	0.009	0.737	0.621
	Within groups	1.002	82	0.012		
	Total	1.056	88			
Continuing training	Between groups	0.019	6	0.003	0.945	0.468
	Within groups	0.276	82	0.003		
	Total	0.295	88			

Table 2
Effect sizes between educational psychology and health management aspects

Health management aspects		Point Estimate	95% Confidence Interval	
			Lower	Upper
Structure and team management	Eta-squared	0.194	0.021	0.291
Quality and safety of care	Eta-squared	0.195	0.021	0.291
Patient data management	Eta-squared	0.179	0.012	0.274
Inter-professional cooperation	Eta-squared	0.149	0.000	0.238
Accessibility and continuity of care	Eta-squared	0.051	0.000	0.097
Continuing training	Eta-squared	0.065	0.000	0.121

Analysis of the results reveals that according to Table 2, the “educational psychology” variable shows significant links with management aspects within CMPPs, with impact rates ranging from 19.4% to 19.5%, 17.9% to 14.9%. These links can be studied as follows:

It should be noted that of the six relationships studied, four demonstrated total dependence.

Firstly, a significant relationship was noted between educational psychology and structure and team management ($P = 0.006 < 0.05$), with an effect size of 19.4%. This suggests a dependency between the educational psychology variable and structure and team management. More precisely, we can say that structure and team management are positively impacted by educational psychology.

The management of a structure can be successful and well managed when it involves monitoring the psychological health of its staff. Educational psychology is a basic point that is indeed important and has an impact on managerial aspects both near and far.

Similarly, the table shows a significant relationship between the psychological aspect and the managerial aspect of quality and safety of care ($P = 0.006 < 0.05$), with an effect size of 19.5%.

This clear dependency suggests the effect that educational psychology can have on the quality and safety aspect of care.

The quality and safety of care is an essential and indispensable component in the management of a CMPP, which is why the involvement of psychology guarantees the success and development of its process through the promotion and fostering of the psyche of its community and subjects in the field.

Furthermore, a significant correlation is observed between the managerial aspect patient data management ($P = .011 < 0.05$) in relation to educational psychology with an effect size of 17.9%.

This shows the dependency between the educational psychology variable and patient data management within the centre.

This supports the importance of applying educational psychology principles in the patient data management process.

Finally, a salient dependency was noted between the psychology variable and the interprofessional cooperation variable, with a significant significance index and effect size ($P = .035 < 0.05$) and 14.9%.

The significance and effect size indices reinforce this finding, with a significance level (p) of 0.035, below the conventional threshold of 0.05, indicating a high probability that the observed relationship is not due to chance.

The effect size of 14.9% underlines the substantial importance of this relationship. Almost 15% of the variance in the managerial aspect of interprofessional cooperation can be explained by the educational psychology variable.

These results suggest that specific educational psychological aspects play a significant role in how managerial practices influence cooperation within interprofessional teams.

In summary, these findings highlight the crucial importance of educational psychology in the managerial context of CMPPs, positively influencing structure and team management, quality and safety of care, patient data management, and potentially interprofessional cooperation. These findings can inform professional development strategies and initiatives aimed at strengthening these competencies among CMPP staff for optimal service delivery.

During our face-to-face interviews with CMPP directors in Paris, we had the chance to talk to renowned experts such as Christophe PERROT, Pedagogical Director, and Amandine BUFFIERE, Medical Director of CMPP Claude Bernard, the first centre created in France in 1946. We also spoke with Mr. Carlos PARADA, Director, Malika REZKANE, Assistant Director of the CMPP Delépine in Paris, and finally with Emmanuel DARMON, director of the CMPP de l'OSE in Paris.. All of them stressed the importance of two fundamental elements: effective communication with families and respect for management principles, with the aim of improving educational psychology within their CMPP.

Moreover, an environment conducive to children's optimal development requires managerial aspects such as optimal organisational structure, effective team management and rigorous quality and care safety policies. In addition,

accurate management of patient data and enhanced inter-professional cooperation are essential to personalise interventions and constantly improve educational and therapeutic practices within CMPPs.

Close, proactive communication with families and schools is also a key aspect. CMPPs can really improve their care by facilitating transparent collaboration and ensuring continuity of care tailored to children's individual needs. In this way, careful management of these elements plays an important role in improving the overall well-being and positive outcomes of the children who benefit from the services of the CMPPs in Paris.

This section presents a discussion of the results obtained to answer the central question of this study, articulated as follows: What is the nature of the dependency between educational psychology and managerial practices, and how do these relationships influence organisational dynamics and performance within medico-social contexts?

The results of this study reveal substantial links between educational psychology and managerial aspects within CMPPs. This unique exploration highlights specific dynamics that could guide more effective practices in these contexts.

Firstly, K. Callicott, J. Leadbetter highlighted the significant correlation between educational psychology and structure and team management suggests that professionals imbued with knowledge of educational psychology are better positioned to implement managerial practices that promote effective organisational structure and optimal team cohesion [28]. A. C. Edmondson mentions that this understanding of psychological dynamics can contribute to more strategic management and increased team motivation [29].

The dependence observed between the educational psychology variable underlines the need to adapt managerial strategies to meet the specific psychological needs of teams working in CMPP. As confirmed by D. Holzberger, A. Philipp, M. Kunter, individualised approaches, focused on emotional well-being, could foster a more productive working environment [30].

Certainly, the significant dependence on the quality and safety of care underscores the importance of educational psychology in the delivery of high-quality care. According to I. M. Nembhard and A. C. Edmondson, professionals with psychological skills may be better able to understand and respond to patients' psychological needs, thereby improving the quality of care and the safety of interventions [31].

S. S. McMillan, E. Kendall, A. Sav et al. suggest a direct link between educational psychology and the quality of clinical interventions. CMPP managers could consider additional training focused on psychological skills to improve service delivery [32].

Furthermore, G. C. Williams and G. L. Schlomer, S. Bauman, N. A. Card concluded that the significant correlation with patient data management indicates that educational psychology can play a crucial role in setting up effective data management systems. Sensitivity to psychological aspects can contribute to more thoughtful, patient-friendly data collection, analysis, and use [33, 34].

The results by R. Krishnamurthy, L. VandeCreek, N. J. Kaslow indicate that educational psychology skills can have an impact on the initial collection of clinical data [35]. T. Schafer, S. Wood, R. Williams pointed to the fact that professionals with psychological skills can adopt more sensitive approaches, fostering a deeper understanding of patients' needs [36].

G. Shier, M. Ginsburg, J. Howell asserted that CMPP managers could encourage a patient-centred approach to data management. This would involve recognising and integrating the psychological aspects of patients into the design of information systems to ensure appropriate care [37].

As for interprofessional cooperation, Q. Eichbaum proved that the significant relationship suggests that educational psychology can foster more open communication and harmonious collaboration between team members [38]. As confirmed by T. A. O'Neill and M. J. W. McLarnon, understanding psychological dynamics can help resolve conflicts and promote a collaborative environment [39].

Managerial aspects, such as communication and collaboration, seem closely linked to educational psychology. D. W. Johnson and R. T. Johnson pointed out that managers could foster an environment where communication channels are open, encouraging mutual understanding and cooperation within teams [40].

In sum, the significant dependence between educational psychology and the managerial aspect of interprofessional cooperation indicates that psychological characteristics related to this field may have a substantial influence on managerial dynamics and collaboration within interprofessional environments. This deeper understanding can be valuable in guiding managerial practices and training in interdisciplinary contexts.

In conclusion, this study highlights the interconnection between educational psychology and managerial aspects within CMPPs. The practical implications of these findings may guide CMPP managers in Morocco towards more holistic managerial practices, thus fostering an environment conducive to the delivery of quality services and the well-being of professionals as well as patients.

Conclusion

The management of CMPPs is a subtle balance between the medical and social dimensions, where the coordination of resources is essential to offer comprehensive support to children and adolescents in difficulty. A. Kasmi, B. Touri, K. Khennou et al. concluded that these structures are unique in the medical-social field in that they combine medical, psychological, and pedagogical knowledge to meet the unique needs of patients by [41].

In the light of the interviews conducted in this study, the heads of the CMPPs in Paris highlighted the paramount importance of effective communication with families and strategic management of managerial aspects to improve educational psychology and children's well-being. Their answers thus propose a promising model for Morocco, highlighting rigorous management of organisational structures

and high-quality care. The implementation of these practices has been recognised as essential for improving childcare and strengthening children's mental health services adapted to the Moroccan context, while providing greater support for families.

In conclusion, exploration of the correlations between educational psychology and CMPP management reveals a profound interconnection that is necessary to ensure the well-being and holistic development of children in difficulty. Through this analysis, it becomes clear that a thorough understanding of the principles of educational psychology effectively informs management practices within CMPPs, enabling a holistic and adaptive approach. Collaboration between mental health and education professionals, the personalisation of interventions, and open communication with families are all crucial facets of this dynamic. By harmonising the principles of educational psychology with the demands of management in CMPPs, it becomes possible to create environments that foster growth, resilience and success for children facing a variety of challenges. Ultimately, it is this synergy between educational psychology and management that enables CMPPs to fulfill their essential mission: to offer comprehensive, caring support to enable every child to reach his or her full potential.

Limitations

We recognise that the use of a self-administered questionnaire may lead to reporting bias and that results may be influenced by the subjectivity of participants' responses.

We recognise the possibility of response bias, as participants may be inclined to provide socially acceptable answers rather than truthful ones, which could affect the validity of the results.

Prospects

Our research focused on Medical-Psycho-Pedagogical Centres (CMPPs) in France, motivated by the cultural similarity with Morocco, our aim is to contribute to the discussion and planning of similar services in Morocco. The lack of such centres in the Moroccan context reinforces the importance of our results, which can serve as a reference for Moroccan professionals and decision-makers. However, we recognise the need to adapt our findings to the cultural particularities and specific needs of Morocco. By considering our research as an initial resource, we hope to encourage local initiatives to establish CMPPs in Morocco, in order to meet children's complex needs for psychological and pedagogical support.

References

1. Catteaux A. Une certaine conception de l'administration: éducation nationale et enfance inadaptée (1945–1988), un témoignage. *Revue D'histoire de L'enfance "Irrégulière"*. 2014;16:99–110. (In French) doi:10.4000/rhei.3649
2. Morel S. La cause de mon enfant: mobilisations individuelles de parents d'enfants en échec scolaire précoce. *Politix*. 2012;99(3):153–176. (In French) doi:10.3917/pox.099.0153
3. Sharma A., Dunay A. Special education versus inclusive education: examining concerns and attitudes of teaching professionals toward children with disabilities. *Forum Scientiae Oeconomia*. 2018;6(1):83–102. Accessed June 11, 2024. <https://www.ceeol.com/search/article-detail?id=666471>
4. Eleweke C.J., Rodda M. The challenge of enhancing inclusive education in developing countries. *International Journal of Inclusive Education*. 2002;6(2):113–126. doi:10.1080/13603110110067190
5. Bourqia R. Repenser et refonder l'école au Maroc: la vision stratégique 2015–2030. *Revue Internationale D'éducation de Sèvres*. 2016;71:18–24. (In French) doi:10.4000/ries.4551
6. Wong S.R., Fisher G. Comparing and using occupation-focused models. *Occupational Therapy in Health Care*. 2015;29(3):297–315. doi:10.3109/07380577.2015.1010130
7. Ismajli H. Differentiated instruction: understanding and applying interactive strategies to meet the needs of all the students. *International Journal of Instruction*. 2018;11(3):207–218. Accessed June 11, 2024. <http://files.eric.ed.gov/fulltext/EJ1183415.pdf>
8. David-Ferdon C., Kaslow N.J. Evidence-based psychosocial treatments for child and adolescent depression. *Journal of Clinical Child & Adolescent Psychology*. 2008;37(1):62–104. doi:10.1080/15374410701817865
9. Ferris G.R., Arthur M.M., Berkson H.M., Kaplan D.M., Harrell-Cook G., Frink D.D. Toward a social context theory of the human resource management-organization effectiveness relationship. *Human Resource Management Review*. 1998;8(3):235–264. doi:10.1016/s1053-4822(98)90004-3
10. Aguilera R.V., Dencker J.C. The role of human resource management in cross-border mergers and acquisitions. *International Journal of Human Resource Management*. 2004;15(8):1355–1370. doi:10.1080/0958519042000257977
11. Nooteboom L.A., van den Driesschen S.I., Kuiper C.H.Z., Vermeiren R.R.J.M., Mulder E.A. An integrated approach to meet the needs of high-vulnerable families: a qualitative study on integrated care from a professional perspective. *Child and Adolescent Psychiatry and Mental Health*. 2020;14(1). doi:10.1186/s13034-020-00321-x
12. Almqvist A.-L., Lassinanntti K. Social work practices for young people with complex needs: an integrative review. *Child and Adolescent Social Work Journal*. 2018;35(3):207–219. doi:10.1007/s10560-017-0522-4
13. Pomytkina L., Moskalyova L., Podkopaieva Y., Gurov S., Podplota S., Zlahodukh V. Empirical studies of socio-psychological conditions of formation of ideas about the spiritual ideal in primary school children. *International Journal of Children's Spirituality*. 2019;24(4):371–88. doi:10.1080/1364436x.2019.1672626
14. Cognet G., Marty F. Chapitre 1. Histoire de la psychologie scolaire. In: Cognet G., Marty F., eds. *Être Psychologue de l'Éducation Nationale: Missions et Pratique*. Paris: Dunod; 2018:19–37.
15. Guillaín A. La psychologie de l'éducation: 1870–1913. Politiques éducatives et stratégies d'intervention. *European Journal of Psychology of Education*. 1990;5(1):69–79. Accessed June 11, 2024. <http://www.jstor.org/stable/23422227>
16. Miyake A., Friedman N.P. The nature and organization of individual differences in executive functions: four general conclusions. *Current Directions in Psychological Science*. 2012;21(1):8–14. doi:10.1177/0963721411429458
17. Hoffman R.R., Deffenbacher K.A. A brief history of applied cognitive psychology. *Applied Cognitive Psychology*. 1992;6(1):1–48. doi:10.1002/acp.2350060102

18. Cameron R.J. Educational psychology: the distinctive contribution. *Educational Psychology in Practice*. 2006;22(4):289–304. doi:10.1080/02667360600999393
19. Duque E., Gairal R., Molina S., Roca E. How the psychology of education contributes to research with a social impact on the education of students with special needs: the case of successful educational actions. *Frontiers in Psychology*. 2020;11. doi:10.3389/fpsyg.2020.00439
20. Dunlosky J., Rawson K.A., Marsh E.J., Nathan M.J., Willingham D.T. Improving students' learning with effective learning techniques: promising directions from cognitive and educational psychology. *Psychological Science in the Public Interest*. 2013;14(1):4–58. doi:10.1177/1529100612453266
21. Mialaret G. Essai de définition. In: Mialaret G., ed. *Psychologie de L'éducation*. Paris cedex 14: Presses Universitaires de France; 2011:3–12. (In French) doi:10.3917/puf.miala.2011.02
22. Chepurna L., Frolov D., Stepanchenko N., Zaplatynska A., Genkal S., Tovstohan V. Forming of school manual as a scientific problem in general and special psychopedagogy. *Revista Romaneasca pentru Educatie Multidimensionala*. 2022;14(2):513–538. doi:10.18662/trem/14.2/593
23. Lecomte J. 14. La psychologie de l'éducation. In: Lecomte J., ed. *30 Grandes Notions de la Psychologie*. Paris: Dunod; 2017:72–76.
24. Lindsay G. Educational psychology and the effectiveness of inclusive education/mainstreaming. *British Journal of Educational Psychology*. 2007;77(1):1–24. doi:10.1348/000709906x156881
25. Besse J.-M. L'enfant, l'élève et la psychologie de l'éducation. *Canal Psy*. 1999;(38):4–5. doi:10.35562/canalpsy.2120
26. Maillet J. *Development of a Questionnaire to Assess the Organizational Development of Primary Care Groups: Testing the Questionnaire in the Five Health Centres of the Association for the Management of Associative Health Centres*. PhD thesis. Grenoble, France: Human Medicine and Pathology Department, Faculty UFR of Medicine, Grenoble Alpes University; 2016:95–99.
27. Lavarelo B. *The Medical-Psycho-Pedagogical Centers (CMPP) in the Central Region. Survey of CMPP Activity*. Thesis. France; 2008:46–56.
28. Callicott K., Leadbetter J. An investigation of factors involved when educational psychologists supervise other professionals. *Educational Psychology in Practice*. 2013;29(4):383–403. doi:10.1080/02667363.2013.853649
29. Edmondson A.C., Roberto M.A., Watkins M.D. A dynamic model of top management team effectiveness: managing unstructured task streams. *Leadership Quarterly*. 2003;14(3):297–325. doi:10.1016/s1048-9843(03)00021-3
30. Holzberger D., Philipp A., Kunter M. Predicting teachers' instructional behaviors: the interplay between self-efficacy and intrinsic needs. *Contemporary Educational Psychology*. 2014;39(2):100–111. doi:10.1016/j.cedpsych.2014.02.001
31. Nembhard I.M., Edmondson A.C. Making it safe: the effects of leader inclusiveness and professional status on psychological safety and improvement efforts in health care teams. *Journal of Organizational Behavior*. 2006;27(7):941–966. doi:10.1002/job.413
32. McMillan S.S., Kendall E., Sav A., King M.A., Whitty J.A., Kelly F., et al. Patient-centred approaches to health care: a systematic review of randomized controlled trials. *Medical Care Research and Review*. 2013;70(6):567–596. doi:10.1177/1077558713496318
33. Williams G.C. The importance of supporting autonomy in medical education. *Annals of Internal Medicine*. 1998;129(4):303. doi:10.7326/0003-4819-129-4-199808150-00007
34. Schlomer G.L., Bauman S., Card N.A. Best practices for missing data management in counseling psychology. *Journal of Counseling Psychology*. 2010;57(1):1–10. doi:10.1037/a0018082
35. Krishnamurthy R., VandeCreek L., Kaslow N.J., Tazeau Y.N., Miville M.L., Kerns R., et al. Achieving competency in psychological assessment: directions for education and training. *Journal of Clinical Psychology*. 2004;60(7):725–739. doi:10.1002/jclp.20010

36. Schafer T., Wood S., Williams R. A survey into student nurses' attitudes towards mental illness: implications for nurse training. *Nurse Education Today*. 2011;31(4):328–332. doi:10.1016/j.nedt.2010.06.010
37. Shier G., Ginsburg M., Howell J., Volland P., Golden R. Strong social support services, such as transportation and help for caregivers, can lead to lower health care use and costs. *Health Affairs (Millwood)*. 2013;32(3):544–551. doi:10.1377/hlthaff.2012.0170
38. Eichbaum Q. Collaboration and teamwork in the health professions: rethinking the role of conflict. *Academic Medicine*. 2018;93(4):574–580. doi:10.1097/acm.0000000000002015
39. O'Neill T.A., McLarnon M.J.W. Optimizing team conflict dynamics for high performance teamwork. *Human Resource Management Review*. 2018;28(4):378–394. doi:10.1016/j.hrmr.2017.06.002
40. Johnson D.W., Johnson R.T. An educational psychology success story: social interdependence theory and cooperative learning. *Educational Researcher*. 2009;38(5):365–379. doi:10.3102/0013189X09339057
41. Kasmi A., Touri B., Khennou K., Baba H. Moving towards a successful medical-psycho-pedagogical centre: analytical study of management aspects. *Obrazovanie i nauka = The Education and Science Journal*. 2024;26(4):104–120. doi:10.17853/1994-5639-2024-3452

Information about the authors:

Aziz Kasmi – PhD Student, Laboratory of Information and Education Sciences and Technologies, Ben M'sik Faculty of Sciences, Hassan II University, Casablanca, Morocco; ORCID 0000-0003-2920-9169. E-mail: aziz.kasmi.20@gmail.com

Bouzekri Touri – Professor, Laboratory of Information and Education Sciences and Technologies, Ben M'sik Faculty of Sciences, Hassan II University, Casablanca, Morocco; ORCID 0000-0003-3795-0029. E-mail: touribouzekri@gmail.com

Conflict of interest statement. The authors declare that there is no conflict of interest.

Received 19.02.2024; revised 05.07.2024; accepted 10.07.2024.

The authors have read and approved the final manuscript.

Информация об авторах:

Касми Азиз – аспирант лаборатории информационных и образовательных наук и технологий факультета наук Бен М'сик Университета Хасана II, Касабланка, Марокко; ORCID 0000-0003-2920-9169. E-mail: aziz.kasmi.20@gmail.com

Тури Бузекри – профессор Лаборатории информационных и образовательных наук и технологий факультета наук Бен М'сик Университета Хасана II, Касабланка, Марокко; ORCID 0000-0003-3795-0029. E-mail: touribouzekri@gmail.com

Информация о конфликте интересов. Авторы заявляют об отсутствии конфликта интересов.

Статья поступила в редакцию 19.02.2024; поступила после рецензирования 05.07.2024; принята к публикации 10.07.2024.

Авторы прочитали и одобрили окончательный вариант рукописи.

Información sobre los autores:

Aziz Kasmi: Estudiante de doctorado, Laboratorio de Ciencias y Tecnologías de la Información y de la Educación, Facultad de Ciencias Ben M'sik, Universidad Hassan II, Casablanca, Marruecos; ORCID 0000-0003-2920-9169. Correo electrónico: aziz.kasmi.20@gmail.com

Bouzekri Touri: Profesor, Laboratorio de Ciencias y Tecnologías de la Información y de la Educación, Facultad de Ciencias Ben M'sik, Universidad Hassan II, Casablanca, Marruecos; ORCID 0000-0003-3795-0029. Correo electrónico: touribouzekri@gmail.com

Información sobre conflicto de intereses. Los autores declaran no tener conflictos de intereses.

El artículo fue recibido por los editores el 19/02/2024; recepción efectuada después de la revisión el 05/07/2024; aceptado para su publicación el 10/07/2024.

Los autores leyeron y aprobaron la versión final del manuscrito.