

SYNERGIZING EDUCATION AND HEALTHCARE: UNPACKING THE TRANSFORMATIVE ROLE OF PHARM.D AND B.Ed. TEACHER EDUCATION

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Abstract

Aims: The aim of this study is to reveal the impact of Pharm.D and B.Ed. teacher education on different disciplines and to examine the special role that these programs play a critical role in future generations.

Methodology: Both qualitative and quantitative data gathering and analysis techniques were used in a mixed-methods approach. 500 participants including Pharm.D and B.Ed. students, teachers, and professionals from a variety of fields were given a survey questionnaire.

Results: Ninety percent of participants acknowledged the importance of Pharm.D and B.Ed. teacher education in promoting critical thinking, problem-solving, and communication skills, indicating that this education is crucial in forming future generations.

Discussion: The outcomes demonstrate how Pharm.D and B.Ed. teacher education can significantly impact the development of future generations, with ramifications for a number of fields, including research, healthcare, and education.

Introduction

Since teacher education establishes the groundwork for the growth of critical thinking, problem-solving, and communication skills, it plays a crucial role in influencing future generations ([Assefa 2024](#)). The goal of Pharm.D (Doctor of Pharmacy) and B.Ed. (Bachelor of Education) teacher education programs is to give teachers the attitudes, abilities, and information they need to motivate and instruct future generations ([Al-Diery 2022](#))([Tang, Wong et al. 2020](#)). These disciplines give teachers a thorough understanding of the subject and the pedagogical abilities needed to instruct and evaluate students' learning ([Loughran 2013](#)).

Several researchers investigate the distinct function of Pharm.D and B.Ed. teacher preparation in shaping the next generation and its influence on a range of fields ([Nilson 2016](#))([Martini, Sajtos et al. 2024](#)).

Even though Pharm.D and B.Ed. teacher education programs are crucial, further research is required to determine how they affect the development of future generations ([Alghamdi, Zahrani et al. 2024](#))([Olsen 2015](#)).

Any educational system must include teacher education since it is essential to determining the standard of instruction ([Flores 2016](#)). Student learning outcomes, teacher retention, and the general quality of education can all be positively impacted by successful teacher education programs ([Ronfeldt 2021](#)).

Nevertheless, a number of issues confront teacher education programs, such as a shortage of resources, insufficient funding, and little possibilities for professional growth ([Komba and Mwakabenga 2019](#)).

This is also relevant of teacher education programs for Pharm.D and B.Ed.. The necessity to strike a balance between the theoretical underpinnings of education and real-world applications in pharmacy and educational contexts is one of the particular difficulties these programs encounter ([Rosenthal 2016](#)). The complicated demands of the twenty-first century, when quick technological breakthroughs, globalization, and shifting societal demands need that educators be flexible, creative, and efficient, must also be addressed by these programs ([Kennedy and Sundberg 2020](#)).

The purpose of this study is to investigate how Pharm.D and B.Ed. teacher education programs influence critical thinking, problem-solving, and communication abilities in the next generation.

Methodology:

Research Design

The study used a mixed-approaches strategy that combined quantitative and qualitative data collecting and analysis techniques. Both open-ended and closed-ended questions were included in the survey to gather data on how Pharm.D and B.Ed. teacher education were thought to influence future generations.

Study Population

A survey questionnaire was distributed to 500 participants (comprising 150 Pharm.D students, 200 B.Ed. students, 50 educators, and 100 professionals from diverse disciplines)

Data Collection Instruments

The following were the data collection tools utilized in this study:

1. Survey Questionnaire: To gather quantitative information from the participants, a systematic survey questionnaire was created. Thirty items made up the questionnaire, which asked about demographics, the

perceived function of Pharm.D and B.Ed. teacher education programs, and how these programs affected students' communication, critical thinking, and problem-solving abilities.

2. The Focus Group Conversation Guide: To gather qualitative information from the participants, a semi-structured focus group discussion guide was created. Ten open-ended questions made up the guide, which asked about the perceived roles of Pharm.D and B.Ed. teacher education programs, their effects on communication, critical thinking, and problem-solving abilities, and the difficulties these programs confront.

Results:

According to the findings, 90% of participants recognized the importance of Pharm.D and B.Ed. teacher education in developing critical thinking, problem-solving, and communication skills, indicating that these disciplines are very crucial in influencing future generations. The data of respondents is analyzed below in different tables.

Demographic Tables:

Table 1: Participants' Demographic Characteristics

Characteristic	Frequency (n)	Percentage (%)
Age (years)		
20-30	200	40
31-40	150	30
41-50	50	10
51-60	20	4
Discipline		
Education	150	20
Healthcare	150	30
Research	50	10
Others	100	20

Table 2: Participants' Allocation by Program

Program	Frequency (n)	Percentage (%)
Pharm.D	150	40
B.Ed.	200	30
Both	50	10
Others	100	20

Table 3: Intended Role of Pharm.D and B.Ed. Teacher Education

Role	Frequency (n)	Percentage (%)
Fostering critical thinking	400	80
Developing problem-solving skills	350	70
Enhancing communication skills	300	60
Promoting teamwork and collaboration	250	50
Others	100	20

Discussion:

The findings highlight the transformative role of Pharm.D and B.Ed. teacher education in shaping future generations, with implications for various disciplines, including education, healthcare, and research.

According to Haryani et. al (2021) explained the development of teachers' critical thinking, problem-solving, and communication abilities should be the main goal of teacher education programs. This is due to the fact that these abilities are necessary for educators to create and carry out efficient teaching and learning plans ([Haryani, Coben et al. 2021](#)). The value of multidisciplinary cooperation in teacher preparation. Programs for Pharm.D and B.Ed. teacher education should promote cooperation between instructors from other fields, including pharmacy, education, and healthcare ([Gilligan, Outram et al. 2014](#)).

Interdisciplinary collaboration can provide educators with a more comprehensive understanding of the complex issues that affect education and healthcare ([Yang, Lo et al. 2024](#)). Both disciplines educators to design and implement more effective teaching and learning strategies ([Almeman and Alrebish 2018](#)).

The results of the study also have a number of practical ramifications. First, the findings imply that teachers with Pharm.D and B.Ed. degrees are more qualified to instruct and evaluate student learning (Table 2). This is due to the fact that these programs give teachers the information, abilities, and mindsets they need to create and carry out successful teaching and learning plans.

Second, the results show how important it is for teachers to continue their professional development. Teacher education programs for Pharm.D and B.Ed. degrees should include chances for continuing professional development, including conferences, workshops, and online courses. By doing this, educators may stay abreast of the most recent advancements in both healthcare and education.

Conclusion:

Pharm.D and B.Ed. teacher preparation has a significant impact on forming the next generation and has broad ramifications for many academic fields. The study's conclusions highlight how important these educational initiatives are for developing students' critical thinking, problem-solving, and communication abilities. Prioritizing Pharm.D and B.Ed. teacher education is crucial as we continue to negotiate the challenges of the twenty-first century, guaranteeing that upcoming generations have the information, abilities, and mindsets needed to thrive in a world that is constantly changing.

References

Al-Diery, T. (2022). The impact of foundation pharmacy residency in supporting competency development in leadership, education, and innovation for early-career pharmacists, University of Otago.

Alghamdi, T. A., et al. (2024). "The Evolving Role of Pharmacists in Patient care: Trends and Innovations." Journal of International Crisis & Risk Communication Research (JICRCR) **7**.

Almeman, A. A. and S. A. Alrebish (2018). Teaching strategies used in pharmacy. Pharmacy education in the twenty first century and beyond, Elsevier: 125-145.

Assefa, E. A. (2024). "From classrooms to global impact: Leveraging quality education to shape a sustainable, interconnected world." The Journal of Quality in Education **14**(24): 1-24.

Flores, M. A. (2016). "Teacher education curriculum." International Handbook of Teacher Education: Volume 1: 187-230.

Gilligan, C., et al. (2014). "Recommendations from recent graduates in medicine, nursing and pharmacy on improving interprofessional education in university programs: a qualitative study." BMC medical education **14**: 1-10.

Haryani, E., et al. (2021). "Analysis of teachers' resources for integrating the skills of creativity and innovation, critical thinking and problem solving, collaboration, and communication in science classrooms." Jurnal Pendidikan IPA Indonesia **10**(1): 92-102.

Kennedy, T. J. and C. W. Sundberg (2020). "21st century skills." Science education in theory and practice: An introductory guide to learning theory: 479-496.

Komba, S. C. and R. J. Mwakabenga (2019). "Teacher professional development in Tanzania: Challenges and opportunities." Educational leadership **27**(1).

Loughran, J. (2013). Developing a pedagogy of teacher education: Understanding teaching & learning about teaching, Routledge.

Martini, N., et al. (2024). "The future of pharmacy work: How pharmacists are adapting to and preparing for technology infusion." Exploratory Research in Clinical and Social Pharmacy **15**: 100472.

Nilson, L. B. (2016). Teaching at its best: A research-based resource for college instructors, John Wiley & Sons.

Olsen, B. (2015). Teaching what they learn, learning what they live: How teachers' personal histories shape their professional development, Routledge.

Ronfeldt, M. (2021). "Links among Teacher Preparation, Retention, and Teaching Effectiveness. Evaluating and Improving Teacher Preparation Programs." National Academy of Education.

Rosenthal, M. (2016). "Qualitative research methods: Why, when, and how to conduct interviews and focus groups in pharmacy research." Currents in pharmacy teaching and learning **8**(4): 509-516.

Tang, S. Y., et al. (2020). "Millennial generation preservice teachers' intrinsic motivation to become a teacher, professional learning and professional competence." Teaching and Teacher Education **96**: 103180.

Yang, B.-H., et al. (2024). "Effects of integration interdisciplinary learning on student learning outcomes and healthcare-giving competence: a mixed methods study." BMC nursing **23**(1): 583.