REVIEW

by
Assoc. Prof. Dr. Margarita Krasteva-Stoychevska
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regarding the dissertation of VIOLETA PETROVA GLOGOVA

for the acquisition of the educational and scientific degree "Doctor" (PhD) in Professional Field 8.3 Music and Dance Art

entitled:

MOVEMENT THERAPY THROUGH DANCE TECHNIQUES AND ITS IMPACT ON NONVERBAL COMMUNICATION IN CHILDREN WITH AUTISM SPECTRUM DISORDERS

Scientific Supervisors: Assoc. Prof. Dr. Margarita Stankova and Assoc. Prof. Dr. Asya Ivanova

The present review has been prepared on the basis of Order No. 3-RK-126 / 19.02.2026 of the Rector of New Bulgarian University regarding the approval of the composition of the Scientific Jury for the defense procedure of the dissertation of Violeta Petrova Glogova, an independent doctoral candidate supervised by Assoc. Prof. Dr. Margarita Stankova and Assoc. Prof. Dr. Asya Ivanova.

The following documents were provided to me: the candidate's curriculum vitae, dissertation, dissertation abstract, list of publications related to the topic, and the Order appointing the Scientific Jury. These materials comply with the requirements of the Academic Staff Development Act of the Republic of Bulgaria and its implementing regulations for the acquisition of the educational and scientific degree "Doctor" (PhD).

The dissertation by Violeta Glogova represents an in-depth study devoted to movement therapy through dance techniques and its influence on nonverbal communication in children with autism spectrum disorders. The topic is highly relevant and significant, as it explores possibilities for improving perception and communicative abilities in children with autism spectrum disorders.

The dissertation clearly outlines the contextual framework of the study by defining its object and subject, the main aims and objectives, the applied research methodology, and the scientific contributions of the dissertation.

Brief Biographical Information about the Doctoral Candidate

Violeta Glogova was born in 1984. She completed her secondary education at "Konstantin Fotinov" Specialized High School in Samokov. She then continued her studies at the University of Forestry, where she obtained a Bachelor's degree in Forestry Engineering in 2007. She subsequently completed a Master's degree in Business Administration at the University of National and World Economy in 2011.

In 2017, she graduated from the Master's program in Dance Art at the Department of Music of New Bulgarian University with a specialization in Modern Dance Choreography. Her most recent Master's degree was obtained in 2023 at Sofia University "St. Kliment Ohridski" in Preschool and Primary School Pedagogy.

Her serious commitment to education is also evident in the additional qualifications she has pursued over the past fifteen years: Sport Dance Coach – National Sports Academy, 2008; Contemporary Dance Techniques – NSA, 2011; Aerobics and Callanetics Instructor – NSA, 2019; and Zumba Instructor – Zumba, 2023.

Her professional experience includes the following stages: dance pedagogue for preschool and school-age children (2004–2017); part-time lecturer in Aerobics and Zumba at New Bulgarian University (2017–2022); full-time lecturer and consultant in the "Sports Courses" program at NBU (from 2022 to present); and dance pedagogue at CLM Progressive Primary School, specialized in working with children with autism (2022–2025).

Presentation of the Dissertation

The dissertation consists of an introduction, three chapters, conclusions, final remarks, terminological clarifications, bibliography, and two appendices, totaling 165 pages (157 pages of main text and 8 pages of appendices). The bibliography includes 240 references, of which 20 are in Cyrillic and 220 in Latin script. All these elements demonstrate a very well-constructed logical structure of the research and a consistent development of the doctoral candidate's ideas.

The study possesses genuine scientific and practical value, since the problem addressed has not yet been extensively researched in Bulgaria and is of considerable interest both in general terms and specifically for therapeutic work with children with ASD. It should be noted that a significant portion of the core concepts and foundational aspects of the discussed issue have been developed by the doctoral candidate through her overall empirical work to date. This makes the dissertation academically significant, scientifically grounded, and clearly applicable in practice, fully meeting the requirements for scientific relevance and expected research contribution.

The relevance of the dissertation topic, "Movement Therapy through Dance Techniques and Its Impact on Nonverbal Communication in Children with Autism Spectrum Disorders," is determined by the dynamics of contemporary society and the necessity of analyzing and updating approaches for supporting the socialization and adaptation of children with autism spectrum disorders.

The dissertation investigates and systematizes a substantial amount of information based primarily on the doctoral candidate's own research and the examination of numerous previous studies contributing to the analysis and clarification of the issue under consideration.

In the Introduction, the main idea of the research is clearly stated, namely: "analysis of the effect of dance-movement therapy on the development of nonverbal communication in children with ASD, examining both behavioral changes in participants and the possibilities for applying the developed approaches by parents, teachers, and specialists working with this group."

The object of the study is the process of developing nonverbal communication in children with autism spectrum disorders under conditions of purposeful dance-movement therapeutic work. For the purposes of the study, a 12-week program was created, adapted to the participants' specific motor, communicative, and sensory characteristics. The program includes systematically selected movement exercises and musical themes aimed at stimulating coordination, rhythmicity, social interaction, and emotional expression.

The aim of the dissertation is to investigate the effect of structured dance-movement therapy on the development of nonverbal communication in children with autism spectrum disorders and to evaluate the applicability of developed methodological approaches for selecting movements and musical themes in therapeutic practice.

To achieve this aim, the following main tasks were formulated:

- development of a dance-movement therapeutic program adapted to the specific needs and perceptions of children with ASD, including methodologically justified selection of movements and musical content;
- experimental implementation of the program and pre- and post-assessment of participants' nonverbal behavioral responses;
- measurement of the therapeutic intervention effect using validated assessment tools and analysis of observed changes;
- analysis of the practical applicability of the developed methodologies as complementary instruments in therapeutic work with children with ASD.

The research methodology includes four complementary instruments: an original matrix for assessing nonverbal behavioral responses; the standardized ATEC test for quantitative measurement of therapeutic effect; a methodology for selecting movements; and a methodology for selecting musical themes. Their combined application ensures a comprehensive evaluation of the intervention through structured observation and quantitative analysis of the results.

Chapter One: THEORETICAL FRAMEWORK

In the first chapter, the doctoral candidate focuses on the main definitions and theories related to nonverbal communication and its development in children with autism spectrum disorders.

For children with ASD, nonverbal communication occupies a central role, as through facial expressions, gaze, gestures, touch, and movement they are able to express emotions. Various contemporary therapeutic approaches are presented. Through the inclusion of play-based methods, peer learning, video modeling, and various art-therapy practices, the development of social, cognitive, and motor skills is encouraged, sensory systems are stimulated, and a safe environment for self-expression is created.

Dance is defined as a language preceding speech. At the same time, movement itself serves as a primary carrier of meaning and communication and plays a key role in processes of self-expression and social interaction.

In her research, the doctoral candidate uses various models of dance-movement therapy that activate emotional and symbolic processes in children, making them particularly suitable for children with speech difficulties or limitations.

Special attention is devoted to the methodology of dance-movement therapy as part of this theoretical section.

Chapter Two: MATERIALS AND METHODS

In this chapter, Violeta Glogova, building upon the theoretical postulates described previously, presents the essence of her practical study.

She formulates four main hypotheses:

Hypothesis 1: The application of therapeutic intervention through dance-movement therapy leads to significant improvement in all major indicators of nonverbal communication in children with ASD (such as eye contact, facial expression, etc.).

Hypothesis 2: The application of therapeutic intervention through dance-movement therapy leads to improvement in the main areas of functioning in children with ASD (speech-language communication, social interaction, sensory-cognitive functioning, and physical/behavioral health).

Hypothesis 3: Children with ASD demonstrate improvement in specific movement elements and patterns, enabling the identification and selection of movements optimally adapted to their abilities. This selection contributes to more effective structuring and implementation of dance-movement therapy.

Hypothesis 4: Children with ASD distinguish and respond in specific ways to different musical stimuli, allowing for the selection of music most appropriate for therapeutic purposes.

The study involved eight children diagnosed with ASD between the ages of 7 and 11, assessed according to unified criteria under ICD-11 (2019). During the preparatory phase, six children were admitted to participate, ensuring "sample homogeneity and reliable baseline assessment."

A special 12-week program was developed for them, including one 30-minute session per week. Each session consisted of three parts:

1. introductory play-based movement tasks;
2. a main dance and rhythmic module;
3. short relaxation and creative expression through music or drawing.

The program gradually increased in complexity.

The methodology of the research is then presented in detail, including the principles according to which movement and music selection in dance-movement therapy were conducted.

The data are presented through descriptive statistics, significance tests (Wilcoxon Signed-Rank Test and Mann–Whitney U Test), and graphical representations, with analyses performed using the statistical package R. This demonstrates highly serious and in-depth research work.

Based on all results and analyses, Violeta Glogova definitively confirms Hypotheses 1 and 3 and partially confirms Hypothesis 2.

The doctoral candidate successfully justifies her adopted approach in which movement therapy precedes music. In support of her thesis, she presents several arguments.

Chapter Four: RESULTS AND DISCUSSION

This section presents the main research findings accompanied by extensive analysis. Hypothesis 1 is confirmed, namely that dance-movement therapy has a highly positive effect on nonverbal communication in children with ASD.

Therapeutic results demonstrate that 100% of the children finished in the "adequate category," and no regression in behavior was observed in any participant.

ATEC results indicate a clear tendency toward reduction of autistic symptoms and visible improvement compared to baseline levels in most children. As emphasized by the author, this constitutes additional evidence supporting the thesis that dance therapy exerts its strongest influence on bodily regulation, attention, and adaptive behavior.

Based on these findings, Glogova concludes that Hypothesis 2 is partially confirmed, since changes are not uniform: the most significant improvements are observed in sensory-cognitive functioning and physical/behavioral health, whereas speech, communication, and social indicators show improvement to a lesser degree. This leads her to assume that dance-movement therapy primarily affects bodily awareness, regulation, and sensory integration, which subsequently support the development of more complex communicative and social skills.

The dissertation then presents the results from applying the methodology for selecting movements in dance-movement therapy for children with ASD. The author concludes that the selected methodology achieves a high level of success among the studied children. Additional influence is exerted by the selection of musical themes and styles, the atmosphere in which sessions are conducted, personal contact with the child, and the energy with which movements are demonstrated.

All these findings confirm the initial thesis of Hypothesis 3, namely that "children with ASD demonstrate differentiated improvements in specific motor skills, making it possible to determine the most appropriate movements for inclusion in the therapeutic process." Based on this, Glogova concludes that preliminary selection of movements is of key importance for increasing the effectiveness and accessibility of dance-movement therapy for this target group.

Results from applying the methodology for selecting music in dance-movement therapy are also presented. Once again, the author justifies the theoretically grounded sequence considered more appropriate for work with children with ASD. The main arguments supporting this approach are: **movement is the primary form of response in children with ASD; children's motor capacities are more limited than musical parameters; the methodology is based on the principle that "movement determines the musical environment," rather than the reverse; there are risks associated with the opposite sequence; the empirical structure of the study also presupposes movement first and music second; and the theoretical framework of dance-movement therapy places movement at the center**.

These results clearly demonstrate that children with ASD distinguish and react specifically to different musical stimuli, enabling the selection of music most suitable for therapeutic purposes,

thereby confirming Hypothesis 4. The conclusion is drawn that music selection is essential for optimizing therapeutic effect.

The doctoral candidate presents the expected benefits of the developed methodologies. She concludes that, on a broader level, the methodologies may be regarded as an integrative model for working with children with ASD, combining scientific validity with high practical applicability. They create opportunities for individualized adaptation of therapy, training of specialists and parents in recognizing musical and movement preferences, and development of more flexible and effective support programs for nonverbal communication, emotional regulation, and social adaptation.

CONCLUSIONS

The conclusions presented by the doctoral candidate are grouped into four main directions:

- conclusions related to the assessment of nonverbal behavioral responses in children with ASD following dance-movement therapy;
- conclusions from the application and interpretation of the ATEC methodology;
- conclusions related to the methodology for selecting movements in dance-movement therapy for children with ASD;
- conclusions from applying the methodology for music selection in dance-movement therapy for children with ASD.

FINAL CONCLUSION

In conclusion, the author summarizes the issues discussed, formulates conclusions, and identifies practical and scientific applications of the dissertation.

The presented results provide grounds to accept that the formulated research hypotheses are confirmed to a significant extent and that the aims and objectives of the study lead to a positive evaluation of dance-movement therapy as a means of stimulating nonverbal communication in children with autism spectrum disorders.

The above determines the contributory nature of the dissertation.

Chapter Seven: PERSPECTIVES FOR FUTURE EXPANDED RESEARCH AND APPLICATION

The outlined future perspectives based on the present research are related to expanding scientific knowledge in the field of nonverbal communication in children with ASD, conducting comparative studies between dance-movement therapy and other established intervention approaches, and broadening the age range and levels of functionality within the autism spectrum.

An important perspective is the long-term monitoring of the sustainability of the observed positive changes, as well as the development of educational resources and structured protocols for specialists and parents, which would facilitate broader dissemination and systematic application of the approach in various institutional and family contexts.

Contributions

The doctoral candidate identifies contributions in two directions: scientific and applied-scientific.

1. SCIENTIFIC CONTRIBUTIONS

    1.1. Presentation of an initial empirical picture of the possibilities of dance-movement therapy to support nonverbal communication in children with ASD. Although based on a limited sample, the results indicate improvement in key behavioral indicators such as eye contact, facial expressiveness, and communicative initiative.
    1.2. Development and initial testing of a matrix for assessing nonverbal behavioral responses in children with ASD. The instrument, based on ICD-11 principles, demonstrates potential for detecting changes during short intervention periods.
    1.3. Identification of a possible relationship between motor synchronization and improved social engagement. Observations suggest that rhythm, bodily coordination, and group dynamics may support attention and regulation of social behavior.
    1.4. Pilot investigation of an approach for structuring movements suitable for children with medium and higher levels of functioning. Through expert assessment and frequency analysis, movements with the highest usefulness for therapeutic inclusion were identified.

2. APPLIED SCIENTIFIC CONTRIBUTIONS
    2.1. Creation of an integrated pilot methodology for working with children with ASD, including an assessment matrix for nonverbal behaviors, an approach for selecting movements, principles for music selection, and a structured 12-week therapeutic program.
    2.2. Demonstration of potential effectiveness under a low-intensity therapeutic regime. Even with limited frequency (one 30-minute session weekly), positive tendencies were observed.
    2.3. Development of a “shortlist” of movements suitable for practical use by specialists and parents.
    2.4. Proposal of adaptive musical playlists tailored to children’s reactivity and attention.

The selection of music was not intuitive, but rather based on observations and the participants’ responses, which facilitates therapists’ practical work.

Publications Related to the Topic

The doctoral candidate has produced three scientific publications and participated in three scientific forums related to the dissertation topic, as follows:

Glogova, V., & Bozhinova, I. (2024). Methodology for the Selection of Movements in Dance-Movement Therapy for Children with Autism Spectrum Disorders. Yearbook of the National Sports Academy, 2, 99–107. (in Bulgarian)

Glogova, V. (2024). Development and Use of Nonverbal Communication in Children with Autism Spectrum Disorders (ASD) and Their Parents. Norwegian Journal of Development of the International Science, 124, 108–116. https://doi.org/10.5281/zenodo.10515068

Glogova, V. (2024). Dance as a Form of Nonverbal Communication and a Therapeutic Tool in Autism Spectrum Disorders (ASD). XV National School for Doctoral Students and Young Researchers in the Social Sciences – Fundamental and Applied Research and Innovations, ISSN (online) 2683-0868. (in Bulgarian)

Glogova, V. (2025). Assessment of Changes in Nonverbal Behavioral Responses in Children with Suspected Autism Spectrum Disorder (ASD) Following Dance-Movement Therapy. The Scientific Heritage (Budapest, Hungary), 168, 57–63. ISSN 9215-0365.

Glogova, V. (2025). Pilot Study of a Methodology for Music Selection in Dance-Movement Therapy for Children with Autism Spectrum Disorders. XX Young Scientific Forum for Music and Dance, New Bulgarian University – currently under review and pending publication. (in Bulgarian)

I accept the contribution claims outlined by the author in the dissertation.

I would like to congratulate Violeta Glogova, Assoc. Prof. Margarita Stankova, PhD, and Assoc. Prof. Asya Ivanova, PhD, for the path they have undertaken and for the results achieved through this research

In conclusion, considering the significant contribution of the doctoral candidate through her scientific and research activity, and taking into account the high scientific and research quality of the presented dissertation, I give my positive evaluation and respectfully propose that the esteemed Scientific Jury award Violeta Petrova Glogova the educational and scientific degree of Doctor in Professional Field 8.3 Music and Dance Art at New Bulgarian University.

14 May 2026 Assoc. Prof. Dr. Margarita Krasteva-Stoychevska