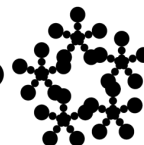
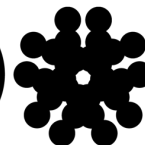

Participation and hope among adolescents with and without NDD

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Adolescence

- Adolescence marks a critical transition phase
- This life stage, spanning from age 10 to 19 (World Health Organization [WHO], 2022), is distinguished by intensive physiological, psychological, and cognitive transformations
- During this period, adolescents encounter numerous educational, emotional, and social challenges, which may be even more pronounced among those with health conditions or neurodevelopmental differences



What is hope?

- Hope is a human strength defined as a cognitive, emotional, and motivational attitude towards the future, and it is linked to desirable outcomes
- Hope consists of three components: Goals, Pathways, and Agency (Snyder, 2002)
- Hope is related to specific goals (in contrast to Optimism which is more of a general outlook)
- **Goals** can be short-term (e.g., baking a cake) or long-term (e.g., going to College). Goals can vary in significance, and may change over a person's lifetime but are personally meaningful and valued
- **Pathways thinking** refers to the perceived ability to plan the necessary actions to achieve the goal
“I know how to do it”
- **Agency thinking** refers to the perceived ability to initiate and maintain efforts toward reaching the goals
“I can do it”

Why is hope important?

- Hope is not just a wishful thinking, it is a dynamic cognitive process
- **Hope predicts positive outcomes in academic and psychological domains, as well as physical health and rehabilitation**
- Therefore, hopeful thinking is recognized as a **protective factor** especially in times of transition or adversity, such as adolescents

Neurodivergent adolescents and Hope

Studies on hopeful thinking among neurodivergent adolescents revealed:

- Lower hope among adolescents with LD, IDD, ASD compared to their neurotypical (NT) peers
- Everyday challenges and executive function difficulties that characterize ND adolescents are barriers against hopeful thinking
- Social skills and social support from parents, teachers, and peers predicted hope for adolescents with ND
- However, to the best of our knowledge, no study has assessed **participation** in everyday activities as a source of hope among adolescents with and without ND

Participation



- Participation is defined as involvement in life situations (ICF, WHO)
- Participation is a multidimensional construct which comprises at least two aspects of doing and being or attendance and involvement
- Participation of ND adolescents may be limited due to client factors such as body functions and performance skills
- Participation of ND adolescents may be restricted due to environmental factors such as social attitudes or lack of support
- Experiencing limited participation, characterized by reduced frequency, diversity, autonomy, and needing additional help or accommodations, can negatively impact hopeful thinking about the future
- Participation in everyday activities can be a source or an obstacle of hopeful thinking

Objectives

- To assess the differences in hope between NT and ND adolescents
- To assess the mediating effect of NDD on the association between participation dimensions and hope

Methods

Participants

- Sixty adolescents aged 13 -17 years ($M=13.948$, $SD=.984$)
- ND group ($N=30$), adolescents with NDD (ADHD, SLD, ASD...), IQ score in the normal range, recognized by their school system as children with special needs and eligible for an individualized education plan (IEP)
- NT group ($N=30$), healthy adolescents with no medical or developmental disability
- All the participants attended mainstream middle schools
- The groups were matched for age and sex



Methods

Measurements

The Adolescence Participation Questionnaire (APQ)

- The APQ is a self-report multi-dimensional assessment of adolescents' participation in daily life activities
- The APQ includes 34 daily life activities (BADL, IADL, Sleep, Leisure, Social-participation, Education, Work, and Volunteering)
- The APQ assesses six dimensions: Diversity (0-34), Independence, Enjoyment, Satisfaction, Value, and Autonomy (1-6), with higher scores indicating higher levels of participation
- For the present sample, internal reliability was adequate (Cronbach's alpha ranging from .30 to .85)
- Construct validity was demonstrated by known group differences and significant correlations with the Adaptive Behaviour Assessment System (ABAS)

Methods

Measurements

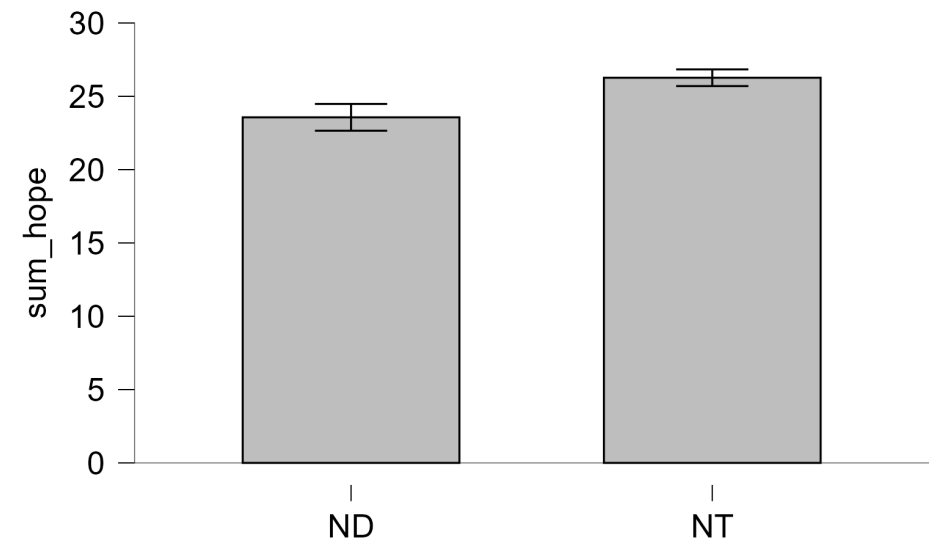
The Hope Scale (HS) (Snyder et al., 1997)

- The HS is a short self-report questionnaire
- The HS comprises six items: three items related to pathways thinking and three items related to agency thinking
- “When I have a problem, I can come up with lots of ways to solve it.” (Pathways)
- “I think the things I have done in the past will help me in the future.” (Agency)
- Each item is rated on a six-point Likert scale ranging from never (1) to always (6)
- The total score ranges from 6 to 36, with a higher score indicating a higher level of hope
- The HS is a well-known reliable and valid test

Results

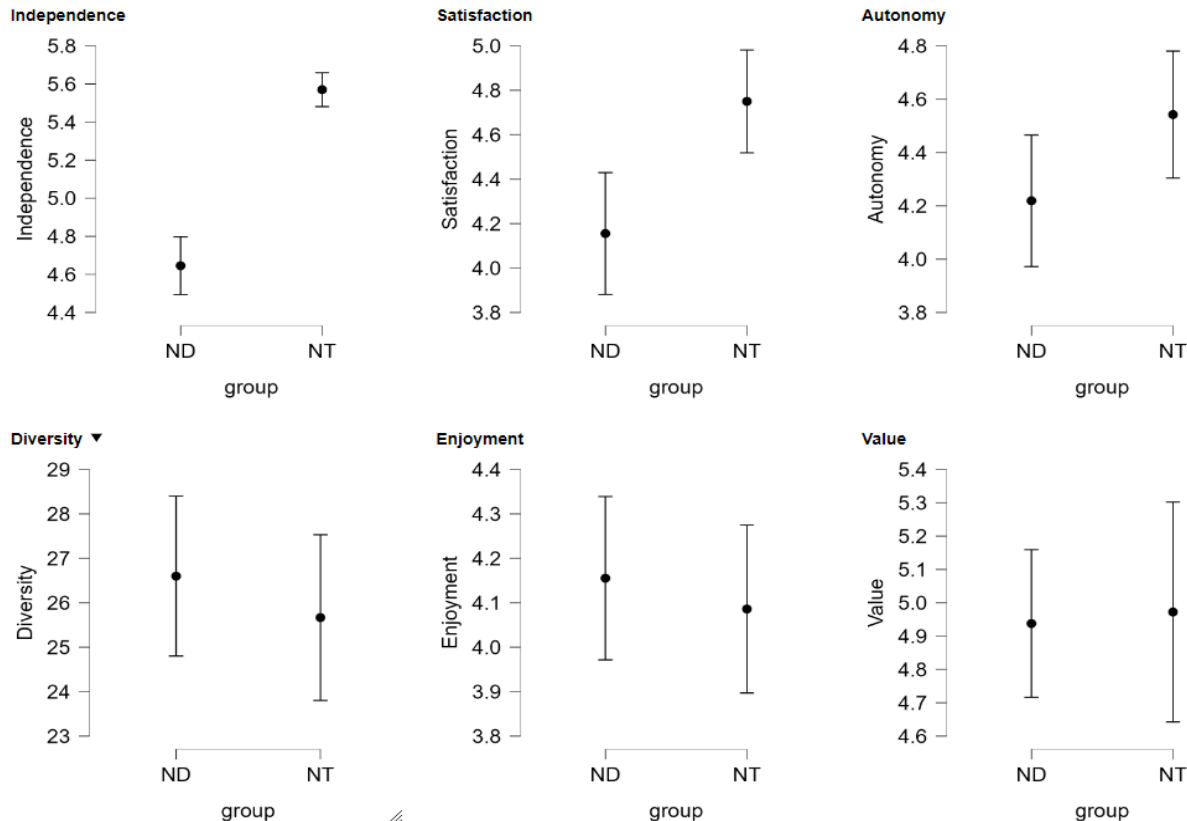
Group difference in Hope-Scale scores

As hypothesized, the ND group reported significantly lower on the Hope-Scale ($m=23.57$, $SD=5.00$) compared to the NT group ($m=26.27$, $SD=3.12$), with a medium effect size ($t=2.51$, $p<0.01$, $d=.648$)



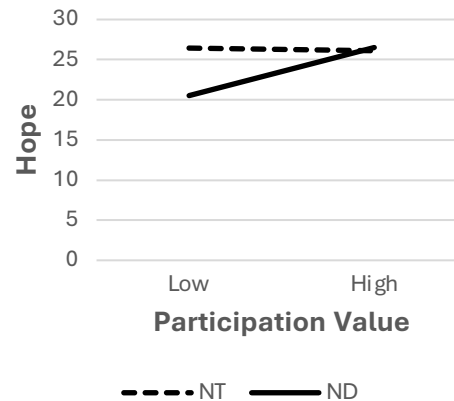
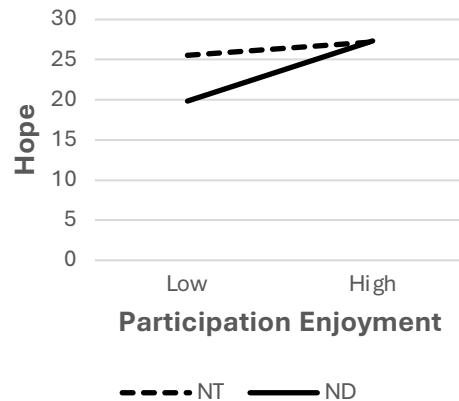
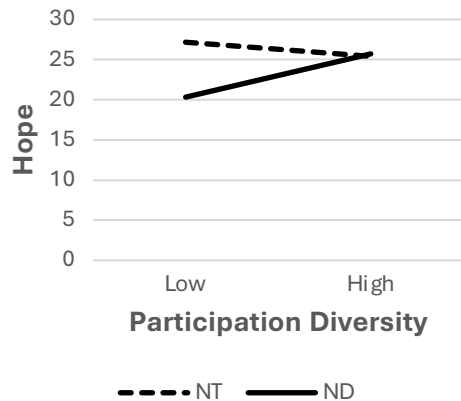
Results

Group differences in participation measures



- Participation Independence, Satisfaction and Autonomy were lower among the ND group
- Meaning that neurodivergent adolescents are less independent, less satisfied with their participation and experience less autonomy
- However, they participate in the same number of activities, enjoy and value their participation to the same extent as their neurotypical peers

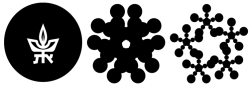
Moderation effect of group (ND vs. NT) on the relationship between participation and hope



- Group moderates the link between participation and hope
- The correlations between participation Diversity, Enjoyment and Value with Hope were significant only among the ND's
- Meaning that participation dimensions (Diversity, Enjoyment and Value) contribute to hopeful thinking of adolescents with neurodiversity

Discussion and Conclusions

- NDD can hinder the sense of hope and some aspects of participation
- However, engaging in diverse, valuable, and enjoyable occupations can specifically enhance hope among adolescents with NDD
- These findings highlight the important role of optimal participation in fostering hope for adolescents with NDD
- For OT's, facilitating opportunities for adolescents with NDD to engage in meaningful and enjoyable activities may help promote their hopeful thinking about the future, and just as meaningful for the present



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Thank you for listening

In memory of Carmel Gat, whose spirit continues to inspire