Physical health as illuminated by youth with vision impairment: implications for physical education and health programs

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Setting the scene...

• Youth with vision impairment show higher obesity and lower physical fitness and activity levels than sighted youth (Augestad & Jiang, 2015; Haegele & Porretta, 2015)

• Identified barriers to their physical activity: (Augestad & Jiang, 2015; Haegele & Porretta, 2015)
  • Limited knowledge in parents, teachers and etc.
  • Lack of accessible and suitable opportunities.

• Limited research has found some programs are associated with increased physical activity in these youth (Furtado et al., 2015; Haegele & Porretta, 2015)
  • Various interventions, small samples, lack of theoretical foundations, and non-validated measures
The value of their voices

- Continued research is needed to fill the knowledge gaps of parents, teachers and etc., and thus enable accessible physical activity programs for youth with vision impairment.

- Personal motivation to be physically active on the part of the youth is a key facilitator of their physical activity (Augestad & Jiang, 2015; Furtado et al., 2015).

- Capturing the voices of youth themselves about their own conceptualization and enactment of physical health is important to understand their motivations.
My Research
Study design

• Adapted from Youth ReACT method for participatory research (Foster-Fishman et al., 2010)

• Study had two phases:
  • An initial data collection phase
  • A member-checking phase following researcher-driven analysis
Recruitment and participants

• Recruited through 7 vision-impairment-related organizations
  • email, postal mail, social media, in-person distribution

Sample:
• 21 youths participated
• Current age: $M = 18.62$ years $SD = 3.12$
• Age at vision impairment onset: $M = 4.59$ years $SD = 5.15$
• 19 (90.5%) were legally blind
• 11 (52.4%) cases of retinal dystrophy – other causes incl. albinism and neurological trauma
• 9 (42.9%) had comorbid conditions
• 16 (76.2%) used non-sport recreation programs
• 13 (61.9%) took part in sports for people with vision impairment
Procedure and analysis

• 3 interviews/focus groups per participant and a participant-driven audio-recording task over approximately a fortnight

Research questions

• **Week 1:** What is going on in your life when you are doing well?
• **Week 2:** Does your vision impairment affect how well you are doing?
  • If ‘Yes’: In what ways? What helps deal with this?
  • If ‘No’: What helps stop it from affecting it?

• Six-staged thematic analysis: 1) Data familiarization, 2) Coding, 3) Deriving themes, 4) Reviewing and structuring themes, 5) Defining and naming themes, and 6) Reporting (Braun & Clarke, 2006)
Member-checking

- Engaged in member-checking process:
  - 1 session per participant
  - An audio-recorded group session
  - Participants presented with major themes and structure
  - Discussed accuracy of the reflection of their views

- 11 participants returned

- Increase rigour and trustworthiness of findings
Overview of results

- Energy
- Bodily health and fitness
- Relaxation
- Physical activity

Physical health
Bodily health and fitness

• Some described the importance of meeting their “basic [needs] like water, food [and] shelter” (Caelan)

• They stressed the importance of avoiding injury and living “relatively pain free” (Harper)
  • Pain management strategies: withdrawal, medication, relaxation

• Physical fitness was also prized as part of bodily health
  • “It’s good to be fit” (Caelan)
  • For similar reasons to sighted youth: e.g. self-esteem, discipline (Eime et al., 2013; Haugen et al., 2013)
  • Maintained through physical activity
Bodily health and fitness (cont’d)

• The participants’ vision impairments influenced how much and why they valued their bodily health

• Vision impairment increased the participants’ perceived and actual experiences of physical harm, and gave them a greater sensitivity to their physical safety:
  • “Walking around in an ever-changing environment… you’re not going…to pick [everything] up [so you] become a little wary” (Val)

• It gave them additional reasons to prize and work towards their own physical fitness:
  • “I did hear a lot about blind people who were inactive and I was determined that that wasn’t going to be me” (Alex)
Energy

• The participants described feelings of “energy” as a central, subjectively-experienced aspect of their physical health
  • Feeling “energized” or “lively” (Val), or having “enthusiasm” (Courtney)

• This energy was not only inherently valuable, but they also needed “to re-energise [to] get ready to go out and do things” (Jules).

• Again, vision impairment demanded “a lot more effort” and thus was “physically draining” (Val), giving the participants a greater appreciation of this energy:
  • “I’d love to be able to... clearly communicate to someone the depth and complexity of my vision [but] it’s easier to try and be the same [which is] why I end up feeling tired”. (Harper)
Relaxation

• Relaxation was primarily important to the participants for enabling their recuperation as it provided respite from the “pressure of school [or] home… in [their] own zone” (Jesse).

• “When I listen to music… it’s just floating there… I so rarely encounter rooms with sufficient and not-over-bright lighting, and not cluttered visual fields [so that experience] is very relaxing” (Morgan)

• Some described their relaxation as meditative and enabling their mindfulness
  • They described valuable spaces where they are “completely relaxed but… just enjoying all of the surroundings” (Jamie)
Physical activity

- Physical activity offered a dynamic strategy for managing their energy:
  - “a surge of energy” (Peyton)
  - an “outlet” for their “inner animal” (Jean)

- “[This activity] gives me enjoyment. It's something that I'm good at [and] I can do [it] in [the] community. [It is] a small part of who I am” (Jules)

- “One [aide] would take me [to this activity]… and I could [do it] to a good speed without hurting myself and… got a real kick out of that” (Alex)
Physical activity (cont’d)

• They reaffirmed several barriers to physical activity (Augestad & Jiang, 2015; Haegele & Porretta, 2015)
  • Physical skill limitations, embarrassment, lack of opportunities

• However, they were active with friends/family: “[playing] with my brothers is just something I love to do [because] we play with [a vision impaired] ball [and] a tennis ball” (Pat)

• “Having… a blind sport there just makes [it] a lot easier” (Taylor)
  • Although, they are under-resourced and “harder to find” (Val).
Key insights

• Emphasis on subjective elements (e.g. energy) alongside bodily health and physical activity

• Shaping effect of vision impairment and other factors
Promoting physical activity

- Developed programs should offer a space where youth with vision impairment can move confidently and freely in space

- Greater direct incorporation of friends and family in their physical activity
  - Supported by previous findings (Ayvazoglu et al., 2006; Wiskochil et al., 2007)
The other half of physical health

- Feelings of energy must be a central target of physical health programs
  - Subjective vitality recognized as important to physical health and wellbeing more generally (Ryan & Frederick, 1997)
  - Special importance due to draining nature of vision impairment (Lieberman, 2002; Columna et al., 2015)

- Need a range of recreational programs in line with expanded core curriculum (Sapp & Hatlen, 2010) – including those promoting relaxation, not just physical activity
  - E.g. reading, arts, music, yoga (Lieberman, 2002; Telles & Srinivas, 1998)
  - Mindfulness should receive further attention (Marques-Brocksopp, 2014)
Future research and conclusion

• Future research should specifically explore the conceptualizations and enactment of physical health in youth with vision impairment
  • Greater guidance around participant-driven data collection tasks
  • Greater participation in data analysis

• The insights offered by these youth are critical for the relevance and traction of programs and education targeting their physical health
References


