The mental health status of deaf and hard of hearing children in the mainstream education system

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The Mental Health Status of Deaf and Hard of Hearing Children in the Mainstream Education System

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Honors Thesis
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Abstract

The current study aimed to unveil the unknown mental health status of deaf and hard of hearing students in mainstream schools. One hundred-seventy seven (N=177) teachers across Ontario completed both an Achenbach Teacher Report Form and a demographic questionnaire about their students. The exploratory nature of the study revealed 21% of deaf and hard of hearing children are experiencing mental health concerns. Ultimately, teachers’ perceptions of problematic mental health behaviours are congruent with actual behavioural concerns, as indicated by the Teacher Report Form. The teacher’s training in deafness did not influence the overall mental well-being of students. Findings illuminate the increased risk of mental health concerns of deaf and hard of hearing students and the need to ensure these students are being accurately identified to receive appropriate mental health services.
The Mental Health Status of Deaf and Hard of Hearing Children in the Mainstream Education System

The mental health of children is of significant concern especially as recent research conducted by the Mental Health Commission of Canada (2012) suggested that 70% of all mental health disorders experienced by adults may have originated in childhood or adolescence. Furthermore, special populations such as d/Deaf children and adolescents are at an even greater risk of developing mental health concerns versus their hearing counterparts (Hindley, 2005). Deaf people typically differentiate between lowercase deaf, which refers to the medical definition of hearing loss, where deafness is seen as a problem to be fixed, and uppercase Deaf, which corresponds to people who are affiliated with Deaf culture and see their difference as a mark of uniqueness. Additionally, some deaf people consider themselves orally deaf, where they use a combination of sign language and speech to communicate, and usually do not consider themselves culturally Deaf. Finally, some individuals associate with the term ‘hard of hearing,’ meaning that the person primarily uses their residual hearing and the spoken word to communicate (Andrews, Leigh & Weiner, 2004). It is important to note that deafness is not a cause of mental health problems, but there are some associated issues that can arise and increase the risk of mental health symptoms (Chovaz, 2012; Wright, Moore, Walker, Holwell, Gentili & Barker, Rhys-Jones, Leach, Hindley & Gascon-Ramos, 2012).

Understanding the occurrence of mental health stressors in deaf and hard of hearing children and adolescents is very important because as of present, about 14% of children and teens in Canada experience mental health concerns, yet only 25% of these children are receiving
adequate treatment (Waddell, McEwan, Shepherd, Offord & Hua, 2005). Furthermore, Chovaz (2012), speculates special populations such as the deaf, are being overlooked and under-treated. A study further investigated the prevalence rates of mental health issues between hearing and orally deaf children in Australia. The Achenbach Child Behavioural Checklist was distributed to parents of deaf children and youth and the Achenbach Youth Self Report was administered to deaf adolescents. The deaf sample was then compared to a report on a similar sample of hearing children and youth. The results yielded that overall, the prevalence rate of mental health disorders between deaf and hearing students held no significant differences, yet the type of mental health issues varied between the groups. It appeared that deaf children and youth were more susceptible to social and thought disorders and deaf teenagers in particular, were more likely to experience internalizing disorders (ie. depression and anxiety) than hearing adolescents (Remine & Brown, 2010). Studies continue to support deaf children and adolescents experiencing a greater deal of emotional, behavioural and social difficulties (Hogan, Shipley, Strazdins, Purcell & Baker, 2011; Fellinger, Holzinger, Sattel, Laucht, 2008) and feel less satisfied than their hearing peers in regards to their interests, physical health and recreational activities (Fellinger et al., 2008). Unfortunately, there is no Canadian data on the prevalence of mental health concerns in our deaf children and adolescents (Chovaz, 2012). Further, as these youth are concurrently students, it becomes the responsibility of their educators to recognize signs and symptoms of potential mental health problems.

Teachers spend a lot of time with their students and a part of their job requires them to recognize mental health symptoms. However, most teachers are not thoroughly trained in the subject of psychopathology. For example, out of the numerous courses offered at Western
University’s teacher’s college program, only two mentioned anything about mental health in the course descriptions (Faculty of Education Preservice Office, 2013). Rothi, Leavey and Best (2008) were interested in teachers’ ability to recognize symptoms of mental health disorders in their students, leading these researchers to conduct in-depth interviews for teachers across England. The results uncovered that ultimately, teachers feel they are inadequate at identifying these symptoms due to their lack of training in the identification of mental health issues. However, teachers suggested that they felt more comfortable identifying externalizing behaviours (such as rule breaking and inattention) compared to internalizing behaviours (such as anxiety and depression), which researchers speculated was due to the saliency of this behaviour in the classroom. A similar study found congruent results, but additionally found that teachers seemed less concerned with students presenting with internalizing symptoms (Loades & Mastroyanopoulou, 2010). Further, observations of mental health symptoms can be subjective and not informed by training in psychopathology. Interestingly, the amount of experience a teacher had was not correlated with increased knowledge of identifying these concerns in their students (Trudgen & Lawn, 2011). It should be emphasized that all the studies mentioned above were conducted with a hearing population. Evidently, there are various dilemmas when it comes to educators recognizing mental health concerns in hearing students, and presently, there is no empirical research indicating the competence of teachers identifying mental health symptoms in deaf and hard of hearing students.

When it comes to deaf and hard of hearing children, there are a few choices parents have when it comes to their child’s education (Chovaz, 2012). They could elect to enroll their child into a residential school where the deaf child would be surrounded by trained teachers of the deaf
and would be educated about Deaf culture, be exposed to sign language, make Deaf friends and participate in Deaf sports and clubs. However, some possible negative aspects of residential schools include the child being away from their families which leads to decreased opportunities to learn to communicate together (Chovaz, 2012). On the other hand, parents could decide to allow their deaf child to attend a mainstream school, where the child is integrated into the hearing world with hearing teachers, peers and the spoken language. There are various methods a school may use such as an interpreter, technology (which requires some degree of residual hearing), and some schools make smaller classrooms to benefit the students who have audiological difficulties. Deaf children attending a mainstream school remain with their families, typically attend school with their siblings and due to the size of mainstream schools, there may be more selection in terms of academic courses. Yet the downfalls of a mainstream education for deaf children can include the potential hardships or isolation when trying to interact with peers, a lack of professionals trained in deafness and Deaf role models, and may face exhaustion for constantly having to keep up in a hearing world (Chovaz, 2012). Whichever type of education parents and their deaf child choose, there is always going to be some possible obstacles, but also some significant benefits from either mainstream schooling or a residential education.

It is important to take into consideration the preparedness of educators in terms of their training of deaf children in their classrooms and how this training affects the experience of the deaf student. A study conducted by Angelides and Aravi (2006) compared the different experiences of deaf and hard of hearing children in specialized schools for the deaf versus mainstream education systems by asking adults to recall their time in either school, or both. The findings suggested that students in mainstream schools tend to have a more difficult time overall,
primarily due to the lack of support and resources available to them, as well as difficulties interacting with peers. On a more positive note, adults who received their education from a mainstream, hearing-oriented school were more likely to obtain greater academic achievements as these students had to adapt to the hearing-centred curriculum. A limitation of this study however, is that it was done with adults reflecting upon their experiences in school, which may be different to what deaf and hard of hearing children experience in schools today. Another study used current deaf students attending mainstream schools and wanted to get an idea of the child’s self esteem when receiving one-on-one tutoring from a Deaf mentor outside of their regular schooling. The researchers manipulated whether the deaf students received Deaf mentoring once a week, twice a week or four times a week. Deaf students receiving mentoring once a week had the highest self esteem in regards to their physical appearance, leadership skills and their creative ability to express themselves. Researchers speculated that this was because they were allowed to make their own decisions giving way to feelings of independence, yet they still felt supported and positively encouraged by their Deaf mentors (Remine, Care, Grbic, 2009). It appears that deaf and hard of hearing students who are exposed to Deaf language, resources, peers and teachers tend to have overall better outcomes, yet the status of their mental health is still unknown, especially when these children are in mainstream educational settings.

There are still some questions left unanswered in the realm of mental health when it comes to deaf and hard of hearing children in the mainstream education system, as research has not yet discovered what this population looks like, particularly within Canada. Additionally, as previous research has shown deaf and hard of hearing students are more likely to experience mental health concerns, and many do elect to attend hearing-oriented schools. This raises the question, are
teachers able to recognize the signs and symptoms of mental health disorders in their deaf and hard of hearing students? Finally, the field of research fails to establish whether the teacher’s training in deafness is associated with the deaf student’s mental health status. The current study is aimed at targeting these gaps in the research to gain a better understanding of this special population of children to ensure they are receiving the proper care and are being supported to their greatest potential of mental well-being. This study is of a qualitative, exploratory design; there are no predictions because as mentioned previously, there is no prior research in this area. However, a general hypothesis is that there will be an increase in mental health concerns in the deaf and hard of hearing student population, as informed by previous empirical studies.

Method

*Note: the current study is archival, therefore the data has previously been collected by another researcher, Dr. C. Chovaz.*

Participants

The original researcher initially contacted the research committees of sixty-three school boards across Ontario with a summary and intent of the proposed research study. Once the research study was approved by the individual Board’s research committee, the Board superintendent identified schools with a deaf or hard of hearing population and the summary of intent of the research was sent to the school principal. Principals directly contacted their teachers of deaf and hard of hearing students who were informed of the study and asked if they wished to participate. To summarize, the process started top-down, given the hierarchal nature of the education system with the teachers being the participants of the study. Teachers were questioned about their students; however, it was up to the school’s discretion whether they decided to obtain
consent from the parents of the children. A flow chart of the recruitment process can be found in Appendix A.

There are one hundred seventy-seven (N=177) participants. It should be emphasized that the teachers are answering questions about their students, and some teachers may be answering a questionnaire package for more than one student. The average age of the students is 12 years, with ages ranging from 6 to 18 years of age. There are 77 female students and 100 male students. The teachers classified their students’ type of deafness, with the majority of students being hard of hearing (n=130), some students are orally deaf (n=36), a small number of students were classified as culturally Deaf (n=4) and finally, a small number of students were not classified at all (n=7). The language the child finds most preferable in the classroom is categorized as such: the most common method of communication is a spoken language (n=171), a small amount of students use American Sign Language (n=6) and some students prefer using total communication (n=6). Some teachers responded that their student used more than one language in the classroom therefore there is some discrepancy when looking at the child’s communication style. Teachers were asked if they perceived any mental health concerns in their students; the vast majority did not notice any concerns (n=149), some teachers did see mental health concerns (n=20) and a handful of teachers were unsure (n=7). One teacher did not comment on their observation of mental health occurrences in their student. Finally, teachers were asked about their training in deafness; 92 teachers certified to teach children of the deaf and 84 teachers lacked this specialized training, one teacher did not respond to their certification (or lack thereof) in training.

**Materials**

There were two tools used in this study: a demographic questionnaire and Achenbach’s Teacher Report Form. The demographic questionnaire was used to gather information about both
the level of training of the teacher as well as information about their students. In addition, the
demographic questionnaire inquired about the teacher’s perspective on the mental health of their
students. It should be emphasized that the demographic questionnaire was asking the teachers to
report characteristics of their students, such as their type of deafness, their age, gender, the
language the child prefers to speak and what technologies (if any) they use to aid their hearing.
The demographics questionnaire can be found in Appendix B.

The Teacher Report Form (TRF) was designed by Thomas Achenbach (1984) and is a tool
used to measure teachers’ observations of their student’s behaviour in the classroom. The
measure consists of a total of 112 items which are divided to include both internalizing disorders
and externalizing disorders. Teachers answer each item on a 3-point Likert scale where 0 (not
ture or rarely true) 1 (somewhat true or sometimes true) and 2 (very true or often true) are the
anchors. This measure was created for children aged 6-18, hence participants over or under this
given age range were excluded from the study to uphold reliability and validity. The TRF has
both high test-retest reliability and also internal consistency, with a Cronbach’s alpha of .95.
Additionally, this measure has strong content validity, criterion validity and construct validity.
The Teacher Report Form can be purchased online by licensed clinical psychologists.

Procedure

Teachers completed a questionnaire package (consisting of both the demographic
questionnaire and the Teacher Report Form), which was estimated to take approximately thirty
minutes to finish. As mentioned previously, a teacher may have completed numerous packages
depending on the number of deaf and hard of hearing students they had in their classroom. Upon
completion, the teachers mailed back the packages to the researcher with the stamps provided. It
is important to note that some of the teachers collaborated with the child’s educational resource to complete the package with the most accuracy.

Results

Mental Health Characteristics of Deaf and Hard of Hearing Students

Table 1 provides a detailed overview of the general mental health status of deaf and hard of hearing students, as indicated by the Teacher Report Form. Descriptive frequencies of the combined TRF total score for borderline and clinical symptoms reveal 21% of deaf and hard of hearing students are experiencing some sort of mental health concern. Furthermore, these students seem to be displaying greater internalizing symptoms (22%) than externalizing symptoms (17%). Deaf and hard of hearing students seem to also have problems with social skills (10%).

Table 1

Incidence of mental health concerns

<table>
<thead>
<tr>
<th></th>
<th>Borderline</th>
<th>Clinical</th>
<th>Combined</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Total Problems</td>
<td>19</td>
<td>10.7</td>
<td>19</td>
</tr>
<tr>
<td>Internalizing</td>
<td>22</td>
<td>12.4</td>
<td>17</td>
</tr>
<tr>
<td>Externalizing</td>
<td>18</td>
<td>10.2</td>
<td>12</td>
</tr>
<tr>
<td>Anxiety/Depression</td>
<td>11</td>
<td>6.2</td>
<td>5</td>
</tr>
<tr>
<td>Withdrawn</td>
<td>7</td>
<td>4.0</td>
<td>3</td>
</tr>
<tr>
<td>Somatic Complaints</td>
<td>9</td>
<td>5.1</td>
<td>4</td>
</tr>
<tr>
<td>Social Problems</td>
<td>8</td>
<td>4.5</td>
<td>11</td>
</tr>
</tbody>
</table>
Thought Problems  
- 6  3.4  3  1.7  9  5.1

Attention Problems  
- 11  6.2  4  2.3  15  8.5

Rule-Breaking Behaviour  
- 5  2.8  6  3.4  11  6.2

Aggression  
- 4  2.3  8  4.5  12  6.8

Teachers’ Perceptions of Mental Health

A chi square analysis was conducted to observe the congruency between teachers’ perception of mental health concerns in their students and the combined borderline and clinical TRF total score of actual behaviours displayed in the classroom. This relationship was found to be significant $\chi^2(2) = 39.92, p<.001$, suggesting that teachers are adequately identifying mental health concerns in their deaf and hard of hearing students. Table 2 displays the distribution of teachers’ perceptions and actual behaviours of the students as portrayed by the Teacher Report Form.

Table 2
Perceived Student Mental Health and Observed Behaviour in the Classroom

<table>
<thead>
<tr>
<th>TRF Total Problems Level</th>
<th>Total (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Borderline/Clinical</td>
</tr>
<tr>
<td>Student Mental Health Concerns</td>
<td>Yes (n)</td>
</tr>
<tr>
<td></td>
<td>No (n)</td>
</tr>
<tr>
<td>Total (n)</td>
<td>134</td>
</tr>
</tbody>
</table>

Teachers’ Training and Students’ Mental Well Being
A t-test compared teachers with and without training in deafness and the resulting mental health of their deaf and hard of hearing students through the use of the combined clinical and borderline total TRF scores. The relationship between training and mental well being of students was found to be non-significant, \( t(174)=-1.42, ns \), suggesting that the training of a teacher has no influence over students’ mental health in the classroom.

**Discussion**

About 21% of deaf and hard of hearing students are displaying a mental health concern in the classroom compared to approximately 14% of hearing children and adolescents (Waddell, McEwan, Shepherd, Offord & Hua, 2005). Results of the study reflect previous research stating that deaf and hard of hearing children are at a greater risk for experiencing mental health concerns (Hindley, 2005). Some possible reasoning’s for this significant difference in incidence rates may be due to various factors surrounding deafness such as, the age of diagnosis and the parents’ reaction to the diagnosis of deafness. Depending on how old the child is when they are declared to have a hearing impairment, they may be subjected to unintentional isolation and miss out on various learning opportunities (Chovaz, 2012). Furthermore, hearing parents may have difficulty coping with the realization that their deaf child will have to grow up in a hearing oriented world. This has the potential to lead to negative attachment relationships, depending on the parents’ resiliency to the diagnosis, their willingness to engage the child and learn to communicate efficiently with them (Thomson, Kennedy & Kuebli, 2011; Chovaz, 2004). Early recognition of mental health concerns in children is essential to begin creating new prevention and intervention techniques, as previous research indicates the majority of adult disorders originated in childhood (Mental Health Commission of Canada, 2012).
The responsibility of identifying mental health symptoms is now being placed upon teachers. Previous research has suggested that educators typically feel inadequate when asked to pinpoint various indicators of mental health concerns (Loades & Mastroymannopoulou, 2010). This is inconsistent with the current study’s results, which found that teachers are accurately identifying such mental health needs in their students. It is possible that while teachers feel unprepared to meet this responsibility, they are under-estimating their actual abilities to notice these differences in behaviour. The Canadian Mental Health Association (2014) reports that the entire population will come into contact with mental health problems throughout their lifetime, whether it be through personal experience or through a family member, friend or colleague. Due to the likelihood of mental health problems amongst the population, there is potential for teachers to infer their own experiences of mental health upon their students. This method of identification is subjective and does not refer to any formal training in psychopathology, yet the increased awareness about mental health issues could be influencing the teachers’ correct observations in their students. Alternatively, it is speculated that teachers may be more adequate at identifying mental health concerns in deaf and hard of hearing children due to the students’ use of body language as a means to communicate. Past research has indicated that teachers feel confident when identifying externalized disorders due to the outward characteristics of the behaviour (such as inattention, rule-breaking, etc.) (Loades & Mastroymannopoulou, 2010). Deaf children tend to be more gestural when communicating and use their body and touch to convey their thoughts and feelings (Goldin-Meadow & Mylander, 1983). Therefore if these students are behaving in a more explicit manner perhaps it is making it easier for teachers to identify concerns in terms of the student’s mental well being.
No difference was found between the trained teachers of the deaf and untrained classroom teachers when observing the mental health outcomes of their deaf and hard of hearing students. Research has proven the relationship between the personality of a teacher and the resulting rapport with a student; if a teacher scores high traits such as openness, agreeableness and conscientious they are more likely to have a good relationship with their students (Medley, 1961). It is possible that teachers typically have such personalities where they wish to nurture their students and are sensitive to their students’ needs. Therefore, even if there was a communication barrier, the attentive support provided by any teacher-figure (with or without training in deafness) may be the influencing factor over deaf and hard of hearing children’s mental well being. Another speculation regarding the relationship between teacher’s training and the student’s mental health may be the degree of accuracy in identifying these issues. As teachers do seem to have significant ability in determining the presence of mental health concerns, it is possible that the identification process is leading to these children receiving care. This could suggest that when examining mental health concerns from a trained teacher of the deaf perspective, this factor is irrelevant as students are being identified and hopefully, receiving care for the symptoms they are experiencing. Future research is needed to investigate whether deaf and hard of hearing are obtaining aid from the appropriate mental health resources.

Having a greater understanding of what the deaf and hard of hearing population looks like in mainstream schools is essential to aid teachers and health care professionals. Knowing what mental health concerns are most prevalent in the classroom can inform educators about what sorts of problems they should be looking for to ensure their student is mentally healthy. For example, 10.7% of deaf and hard of hearing students are having social difficulties; this may be a
specific area teachers should monitor. If their student seems to be having troubles making and maintaining friendships or prefers to play with children much younger than them, this may indicate to the teacher that their student could be experiencing mental health concerns. Being aware of the types of maladaptive behaviours displayed in the deaf and hard of hearing population in hearing oriented schools may lead to receiving services and treating these concerns earlier, in hopes of the diminishment or cessation of symptoms over time.

Further investigation would be worthwhile to compare the mental health status of deaf students in hearing-oriented schools versus schools for the deaf. Research has indicated that deaf students who receive their education in residential schools for the deaf often have to leave their families, and are placed in a new environment away from home (Chovaz, 2012). This may lead to different or new concerns regarding these students’ mental health. A comparison to deaf children in hearing schools may better inform parents where to send their child, to ensure the child is experiencing the least amount of distress possible.

A limitation of the current study was the use of the Teacher Report Form; as of present, there is no adaptation of the measure for a deaf population. It is possible that some of the questions referred to behaviours that are ‘normal’ for deaf students, yet are considered inappropriate in hearing students. An example of this can be explored by looking at the TRF’s item 18: ‘Daydreams or gets lost in his or her thoughts.’ A deaf child may appear to be inattentive or daydreaming, when in fact, they may not be able to hear the teacher’s instructions. A teacher’s first response may be to re-advert the student’s attention to the task at hand, yet the problem may be a hearing one, not an inattention issue. Secondly, teachers were completing questionnaire packages for however many deaf or hard of hearing students they had in their classroom. This
means that one teacher may be completing forms for numerous students, implying that the sample does not fully encompass teachers as the same educator may be repeated with a different student. A more accurate representation would be the total number of questionnaire packages that were returned to the researcher. Finally, it is possible that some teachers did not understand the questions, particularly on the demographic survey. One teacher did not respond to the item pertaining to their training in deafness; it is speculated that they may not have understood what qualifications were needed to be a certified teacher of the deaf, or perhaps, they did not know what being a trained teacher of the deaf meant in context to their profession. Since a lot of the questions appealed to characteristics of deafness, it is easy to infer teachers may not have had enough knowledge about deafness to answer some of the demographic questions to the greatest level of accuracy. It is recommended that future researchers provide brief descriptions of the terminology most commonly used in relation to deafness on any measures they plan to use.
References


Appendix B

Research Study: *The Mental Health of Deaf, deaf, and hard of hearing children and youth in Ontario.*

*Dr Cathy Chovaz C.Psych.*
*Kings University College*
*At the University of Western Ontario*
*Cathy.Chovaz@uwo.ca*

Thank you for answering these two questionnaires regarding your student. This questionnaire is a brief demographic questionnaire and the second enclosed questionnaire is the Teachers Report Form from the Achenbach System of Empirically Based Assessment. All of your answers will be kept confidential and only used for the purposes of this research study. A brochure for the Deaf Kids Mental Health Clinic is enclosed with this questionnaire. If you have any concerns as a result of completing these questionnaires regarding the mental health of your student, you are welcome to contact the Clinic for suggested resources.

Teacher’s Name (optional): ________________________________
Grade that you teach: _________________________________
School: _____________________________________________

1. Are you a trained teacher of the Deaf? Please circle
   Yes  No

2. What is the birth date of your student? ______________________
3. What is the gender of your student? Please circle

   Male          Female

4. What exceptionalities are noted on your student’s IPRC?

   •
   •

5. Is your student
   a. culturally Deaf
   b. Oral deaf
   c. hard of hearing
   d. Other ________________________________

6. Does your student use hearing aids? Please circle

   None    One    Two

7. Does your student had a cochlear implant? Please circle

   Yes       No

8. Does your student use the cochlear implant successfully? Please circle

   Yes       No       Sometimes

9. Does your student prefer to use

   a. Spoken language _____ Which language? __________________
   b. American Sign Language ______
MENTAL HEALTH, DEAF CHILDREN & EDUCATION

10. What language do you primarily teach in?
   a. Spoken language _____ Which language? ________________
   b. American Sign Language ________
   c. Total Communication _______
   d. Other ____________________________
   e. Combination of___________________________

11. Are your student’s parents’ hearing or Deaf? Please circle
   Don’t Know Both hearing Both Deaf One hearing/One deaf
   Other ________________________________

12. Do you feel your student has mental health concerns? Please circle
   Yes      No

13. If yes, please identify the concerns in your own words.
   •
   •
   •
   •

14. To your knowledge, has your student ever accessed mental health services? Please circle
   Yes      No      Don’t Know
15. Were the mental health services developed specifically for Deaf, deaf, and hard of hearing children and youth? Please circle.

   Yes                      No                      Don’t Know

16. Does your region have mental health services developed specifically for Deaf, Deaf, and hard of hearing children and youth? Please circle

   Yes                      No                      Don’t Know

17. If yes, what is the name of the service?

   ________________________________

18. Please to add any comments you feel might be helpful:

   ________________________________

   Thank you very much for your participation in this study