

ATTITUDE TOWARDS DEAF PEOPLE AMONG MALAYSIAN SECONDARY SCHOOL STUDENTS

^aLee Wan Ying

^bTan Chee-Seng

^cSiah Poh Chua

^dLee Mah Ngee

^{abcd}Universiti Tunku Abdul Rahman (UTAR)

^alwying@utar.edu.my

^btcseng@utar.edu.my

^csiahpc@utar.edu.my

^dlee_marnie@yahoo.com.sg

Abstract: *Following the Malaysia Education Blueprint 2013-2025 (Pelan Pembangunan Pendidikan Malaysia), the Ministry of Education Malaysia is working towards providing a special education integration program (Program Pendidikan Khas Integrasi) that would increase the studying potential of special need students which includes student with hearing impairment. Previous research showed that having a positive attitude towards deaf peers in the classroom facilitates the success of inclusive education for deaf students. Therefore, this study intends to investigate the attitudes towards deaf people among hearing students and the impacts of contact with and knowledge about deafness on their attitude. A total of 143 students from two regular schools in Kuala Lumpur participated in this study. Participants' demographic data, contact frequency with deaf people, knowledge about deaf people, and attitude towards deaf people were obtained through the questionnaire. Results showed that both interaction with and knowledge about deaf people were positively associated with attitude toward deaf peers. More importantly, knowledge about deaf people was found to mediate the relationship between interaction with interaction and attitude towards deaf individuals. Implication of the result includes giving insights about the current attitude towards deaf people in schools, in preparation to facilitate deaf students' social and communication needs in the classroom for successful inclusive education.*

Keywords: *Attitude towards deaf people, inclusive education, secondary school students*

INTRODUCTION

Each person with hearing impairment should have equal access to education as with those without disability. This includes having the opportunity to be included in the general education system and not being excluded on the basis of their disabilities, according to Act 685, Article 28 (People With Disabilities Act of 2008). According to the National Education Blueprint of Malaysia, the ministry of education has made plans to ensure that student with hearing impairment would have opportunities for quality education relevant to their needs (Ministry of

Education Malaysia, 2013). For these students with special needs, the Ministry of education has prepared different options of education for them according to their competency levels. For the high-functioning special education needs students, if they are able to cope with the mainstream curriculum, they are encouraged to attend inclusive education programs (IEP). Students who choose schools with the inclusive education programs would attend the same classes as the regular student in the mainstream schools. These classes can have a maximum of five special education needs students. As for the moderate functioning level

special education needs student, they will be encouraged to attend the special education integration program (SEIP). Students who choose schools with SEIP would study in the same mainstream schools as the regular students but will go to different classes to cater for their special needs. Lastly, for special education needs students with lower functioning, they would be encouraged to attend the special education schools, where they will be taught a simplified curriculum which focuses on the basic skills, life skills and social skills.

In order to achieve this goal of providing special needs education, in both Wave 1 (2013 - 2015) and Wave 2 (2016 – 2020) of the National Education Blueprint, the ministry of education aims to create a pipeline of trained teachers and other specialists, and also to create public awareness and involvement (Ministry of Education Malaysia, 2013). A study by Hetu, Getty, and Waridel (1994) states that hearing people both significant others and the general population may not be aware how deafness affects their everyday living. This may be true in Malaysia as well. Therefore, to succeed in including or integrating students with hearing impairment and society, teachers need to be trained and equipped with knowledge of the field while the community also needs to be involved and aware of the needs of these students. Factors such as awareness of cultural diversity, communication sensitivity and development of effective communication skills, structured opportunities for interaction and mutual accommodation and respect, contributes to the positive interaction between deaf and hearing students studying together (Coryell, Holcomb & Scherer, 1992). Attitude towards deaf people is an important aspect of integrating deaf students into regular classrooms or in other social activities (Vignes, et al., 2009). Specifically, when they have a positive attitude towards deafness, hearing students are more likely to accept deaf peers. Hence, this study intends to investigate the attitude towards deafness among the hearing adolescents.

According to Allport's (1954) intergroup contact theory, there will be positive effect of intergroup contact when contact situations are characterized by four key conditions: equal status, intergroup cooperation, common goals, and support by social and institutional authorities. This theory has been applied to reduce the reported prejudice among different population, such as black neighbours, gay man and the disabled, and a meta-analysis study even supports the effectiveness of this theory in reducing prejudices (Pettigrew & Tropp, 2006). Some studies

also showed that the change of attitudes can occur without direct contacts between groups, such as through the imagining contact with outgroup members or just watching TV shows that portrayed intergroup contact (Crisp & Turner, 2009; Shiappa, Gregg, & Hewes, 2005).

Accordingly, we recruit 145 hearing students to examine the relationships between contact with deaf person among hearing students and their attitudes towards deaf person, and whether knowledge about deaf person can be a mediator of the relationships. The results of the findings will able to show the importance of providing awareness and knowledge about deaf persons to hearing students to reduce their prejudice.

Therefore, this study aims to ask the following research questions:

- i. What are the relationships between frequency of contact, knowledge of deaf people and attitudes towards deaf people?
- ii. Whether the knowledge of deaf people is the mediator of the frequency of contact and attitudes towards deaf people?

LITERATURE REVIEW

Attitude towards Deaf People: People with hearing impairment are derived from a big portion of information that people usually receive through sound. The main disadvantage or handicap that they have is a communication breakdown with the hearing world as the hearing world communicates through sound (hearing and speaking) while the deaf individuals communicate through silence (sign and sight). Although deaf individuals are just as abled and can achieve many things just as hearing people do, there are some myths and wrong perception of deaf individuals among hearing people. As deaf people do not communicate through speaking and hearing, they are sometimes viewed as not clever, unable to read, unable to be independent, etc. They can be easily misunderstood, mistreated, taken advantage of, or not given the opportunity to excel. At other times, deaf friendly facilities may not be provided and their voice is not heard because of misconceptions of deaf individuals and the communication breakdown between the deaf and hearing world. A research on children's attitude towards deafness in Greece and UK showed that all children were positive towards deaf children, whereby girls were more positive than boys. According to the researchers, positive attitudes of children were at a superficial level, expressing mostly social and emotional concern, but not a willingness to

interact with these children (Nikolarazi & Reybekiel, 2001).

Attitudes toward children with disabilities are an important aspect of integrating them into regular classrooms or in other social activities (Bossart, Colpin, Pijl, & Petry, 2011; Vignes et al., 2009). When children have a positive attitude toward disabled peers it can facilitate the inclusion of disabled children, while a negative attitude can hinder inclusion (Vignes et al., 2009). Some studies have figured out some personal factors that can influence attitude, including age, culture, gender, religion, self-esteem and knowing a disabled person. Whether one has had any previous or ongoing contact with a person with a disability is an important factor that relevant to the attitudes, that people who were in contact with someone with a disability were found to have more positive attitudes toward persons with an intellectual disability (De Laat, Freriksen, & Vervloed, 2013).

The intergroup contact hypothesis was first proposed by Allport (1954), who suggested that positive effects of intergroup contact occur in reducing prejudice. Nonetheless, contact situations characterized by four key conditions: equal status, intergroup cooperation, common goals, and support by social and institutional authorities. Much work has confirmed the importance of contact in reducing prejudice. Crucially, positive contact experiences have been shown to reduce self-reported prejudice towards Black neighbors, the elderly, gay men, and the disabled (Caspi, 1984; Vonofako, Hewstone, & Voci, 2007; Yucker & Hurley, 1987).

In a wide-scale meta-analysis, it has been found that while contact under Allport's conditions is especially effective at reducing prejudice, even unstructured contact reduces prejudice (Pettigrew & Tropp, 2006). What this means is that Allport's proposed conditions should be best be seen as of a facilitating, rather than an essential, nature. In addition, contact has a real and tangible effect on reducing prejudice in both at the explicit and implicit level. Importantly, actual experiences may not be necessary to improve intergroup attitudes, and that simply imagining contact with outgroup members could improve outgroup attitudes. It seems that direct face-to-face contact is always not necessary, and that positive outcomes can be achieved by positive presentation of intergroup friendships in the media and even simply by imagining interacting with an outgroup member (Crisp & Turner, 2009).

Research on children's attitude towards deafness in Greece and UK showed that all children

were positive towards deaf children, whereby girls were more positive than boys (De Laat et al., 2013). The findings of their study show that their results are consistent with other researchers in that students, teachers and parents have more positive attitude towards inclusion of deaf children than towards children with behavioural or intellectual disabilities. Moreover researchers found that positive attitudes of children were at a superficial level, expressing mostly social and emotional concern, but not a willingness to interact with these children (Nikolarazi & Reybekiel, 2001; De Laat et al., 2013).

According to Schroedel and Schiff (1972), attitude towards deafness affects deaf individuals' self-development (self-image, educational aspirations, vocational ambitions and work adjustments). The social perception towards deafness influenced deaf identity development (Farber, 2015) as well. Schroedel and Schiff pointed out that if hearing individuals have a negative perception towards deafness, it can be a barrier to the success of deaf people in seeking employment, educational opportunities and interpersonal relationships.

RESEARCH METHODS

Participants: A total of 145 students were recruited from two national secondary schools in Kuala Lumpur. Two outliers ($> 3 SD$) were identified and excluded from further analysis. The sample consisted of 97 females and 45 males (one missing value) with the mean age of 15.23 ($SD = 1.11$). Of them, 39.4% were Form two students, 30.3% Form three, 16.2% Form four, 14.1% Form five, and one missing value. Majority of the students were Chinese (72.7%) followed by Malay (21%), Indian (4.9%), and others (1.4%).

Instruments: The questionnaire includes the participants' demographic data, frequency of contact with deaf people, knowledge of deaf people, and the attitude towards deaf peers.

Demographic data. Participants were asked to report their demographic data such as age, gender, current education level, race, and religion in this section.

Contact with deaf people. A five-point-likert scale (1 - never, 5 - always) was used to measure how often participants are in contact with deaf people in various settings (such as school, class, home, neighbourhood, community centre, in public, and social events). A high total score indicates higher

frequency of contact with deaf people. Cronbach alpha was .71.

Knowledge about deaf people. Participants need to report their sources of knowledge participants learnt about deaf people, eight sources of knowledge about deaf people was list down (e.g. teacher, peers, parents, relatives, television, internet, movies, radio). Participants were given a five-point-likert scale (1 - never, 5 - always) to indicate the frequency of learning about deaf people through that particular source. The scores are summed up and higher scores indicate a higher exposure to knowledge about deaf people. Cronbach alpha was .87.

Attitude towards deaf people. Lastly, the Chedoke-McMaster Attitude Towards Children with Handicaps (CATCH) scale was used in this study to measure participant's attitude towards deaf people, particularly their attitude towards deaf peers. CATCH was developed by Rosenbaum, Armstrong, and Ling (1986) and used to measure students' attitude towards their peers with disability (Alves & Santos, 2013). The term 'children with handicaps' was replaced with 'deaf peers'. The scales consists of 36 items on a 5-point likert scale (1- Strongly Disagree, 2 – Disagree, 3- Neutral, 4-Agree, 5- Strongly Agree). This scale consists of three attitudes dimensions (affective, behavioral, and cognitive), with 12 items for each component. There were an equal number of positively and negatively worded statements (Alves & Santos, 2013). The total score is a summation of all 36 items. Higher scores represent a more positive attitude (Bossart & Petry, 2013) or a better attitude (Vignes et al., 2009) towards deaf peers. Hunsaker (2014) reported that CATCH had a strong internal validity across several sample groups and acceptable test-retest consistency. Reliability for all three components were acceptable (affective, $\alpha = .77$, behavioural, $\alpha = .84$, and cognitive, $\alpha = .68$) according to Bossart and Petry (2013). This study reported to have a reliability

of .87 respectively for the attitude components of affective, behavioural, and cognitive.

Procedures: Two government national schools from Kuala Lumpur were selected to participate in this study. These national schools were randomly selected according to listing of schools in that particular location. Permission was obtained from the Ministry of Education and the State Education Department before approaching the schools. We visited the schools based on the date and time proposed by the contact teachers at the schools. About a hundred students from each school were chosen to participate in this study based on the arrangement of the schools, so purposive and quota sampling methods were adopted in this study.

Data Analysis: To analyse the data collected, the researchers will run multiple regressions using SPSS to examine the relationships between knowledge of deaf people, contact with deaf people and attitudes toward deaf people. In addition, we further examined whether knowledge of deaf people mediates the relationship between contact and attitudes toward deaf people.

RESULTS

The relationships between knowledge, contact and attitudes toward deaf people

Prior to the mediation analysis, Pearson correlation analysis was conducted to examine the relationship among the three variables. Table 1 shows the descriptive statistics, correlation, and Cronbach alpha coefficient for the variables.

Table 1 - Descriptive statistics, intercorrelation, and Cronbach alpha coefficient for variables

	Mean	SD	Skewness	Kurtosis	1	2	3
1. Contact	8.97	2.68	1.66	2.20	.71		
2. Knowledge	14.20	5.52	1.04	0.63	.45***	.87	
3. Attitude	123.21	13.65	0.65	0.17	.23**	.38***	.87

Note. Contact = contact with deaf people, Knowledge = knowledge about deaf people, Attitude = attitude towards deaf people.

$SE_{skewness} = .203$, $SE_{kurtosis} = .403$
 $**p < .01$; $***p < .001$

Following suggestions of Kim (2013), normality is assumed for the variables with the exception of contact. The issue was resolved by transforming the score. We conducted the analysis using both of the original and transformed scores respectively. Given that the findings are similar, we reported the results derived from the original score for the sake of interpretation.

The mediating role of knowledge in the association between contact and attitude

The hypothetical mediating role of knowledge in the association between contact and attitude was examined using the PROCESS macro (Hayes, 2013). The effect is statistically significant if zero is not included in the bias corrected confidence interval (CI).

Bootstrapping on 10,000 samples showed that contact was positively associated with knowledge, $B = 0.92$, $SE = 0.16$, $t = 5.94$, $p < .001$, $CI = [0.62, 1.23]$. Similarly, a positive relationship was observed between knowledge and attitude, $B = 0.87$, $SE = 0.22$, $t = 4.05$, $p < .001$, $CI = [0.45, 1.30]$. There was also a significant relationship between contact and attitude, $B = 1.16$, $SE = 0.42$, $t = 2.76$, $p < .01$, $CI = [0.33, 1.98]$. The relationship (i.e., direct effect), however, was not significant after controlling for the effect of knowledge, $B = 0.36$, $SE = 0.44$, $t = 0.80$, $p = .42$, $CI = [-0.52, 1.23]$. The indirect effect of contact on attitude via knowledge was found significant: $B = 0.80$, $SE = 0.22$, $CI = [0.44, 1.34]$ (see Figure 1).

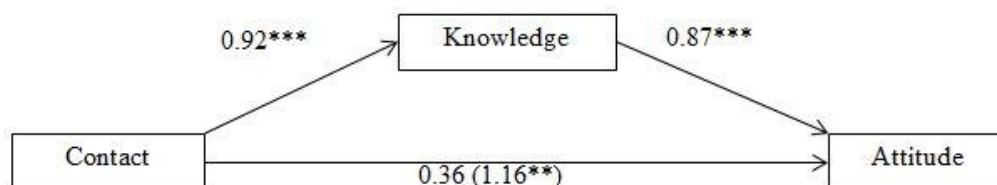


Figure 1: Mediation model showing the effects of frequency of interaction (Contact) and exposure to knowledge of deaf people on attitude towards deaf people. $N = 143$. Values shown are unstandardized coefficients. Total effect of frequency of interaction was shown in parenthesis. $**p < .01$; $***p < .001$

DISCUSSION and CONCLUSION

This study aims to examine the relationships among knowledge, frequency of contact and attitudes toward deaf people, and whether knowledge of deaf people is a mediator of the relationship between frequency of contact and attitude.

For the first research question, the results showed significant positive relationship among the three variables, that students who have a more positive attitude toward deaf person have more knowledge about deaf person and have more contact with deaf person. For the second research question, the results supported the hypothesis that knowledge of deaf people mediates the effect of contact with deaf people on attitudes toward deaf people. In other words, the more contact with deaf person, the more knowledge about deaf people, and finally more positive attitudes toward deaf people. Accordingly, increasing frequency of contact with deaf people does not

necessarily caused a positive attitude toward deaf people. However, the knowledge of deaf people is the main cause.

These findings suggested the importance of providing knowledge of deaf people to hearing students to change their attitudes toward deaf people. The aim of integration and inclusive education is to form a positive attitude toward deaf student among hearing students through the strategy of increasing the contact among hearing and deaf students in a similar school. The finding of this study suggested that increasing the contact is not enough to achieve the aim. It is necessary to include the teaching the knowledge about deaf people to hearing students. Therefore, the support by social and institutional authorities to include this knowledge in the educational setting is an important factor for the success of the strategy.

What kind of knowledge should be included in the educational setting? A few suggestions is to

teach or create awareness of the deaf culture, sign language, needs and challenges as a deaf person living in Malaysia. One suggestion is to also teach basic sign language for communication with the deaf, in order to have direct communication with the deaf individual. Personal experiences might lead to more realistic expectations and attitudes towards deaf people.

There are some limitations in this study. Firstly, only hearing students from Kuala Lumpur were recruited. Future study may consider recruiting more participants from different regions in Malaysia to examine the robust of the findings. Secondly, majority of the participants are Malaysian Chinese. Future study may consider recruiting more participants from Malays and Indian population, so that the findings can generalize to different ethnics in Malaysia. Lastly, the results cannot be generalized to different types of schools, as all participants were recruited from national schools.

REFERENCES

- Allport, G. W. (1954). *The nature of prejudice*. MA: Addison Wesley.
- Alves, S., & Santos, P. (2013). Measuring Students' Attitudes Towards Peers With Disabilities Using a Portuguese Version of the CATCH Scale. *ECER 2013, Creativity and Innovation in Educational Research*.
- Bossaert, G., Colpin, H., Pijl, S. J., & Petry, K. (2011). The attitudes of Belgian adolescents towards peers with disabilities. *Research in developmental disabilities, 32*, 504-509. Doi: 10.1016/j.ridd.2010.12.033
- Bossaert, G., & Petry, K. (2013). Factorial validity of the Chedoke-McMaster Attitudes towards Children with Handicaps Scale (CATCH). *Nikolarazin, M., & Raybould, N. (2011). A comparative study of children's attitude towards deaf children, children in wheelchairs and blind children in Greece and in the UK. European Journal of Special Needs Education, 16(2), 167 – 182. doi: 10.1080/08856250110041090.*
- Caspi, A. (1984). Contact hypothesis and inter-age attitudes: A field study of cross-age contact. *Social Psychology Quarterly, 78-80*.
- Coryell, J., Holcomb, T.K., & Scherer, M. (1992). Attitudes toward deafness: A collegiate perspective. *American Annals of the Deaf, 137* (3), 299-302. doi: 10.1353/aad.2012.0452
- Crisp, R. J., & Turner, R.N. (2009). Can imagined interactions produce positive perceptions? Reducing prejudice through simulated social contact. *American Psychologist, 64(4)*, 231-240. Doi: 10.1037/a0014718.
- De Laat, S., Freriksen, E., & Vervloed, M. P. J. (2013). Attitudes of children and adolescents towards persons who are deaf, blind, paralyzed or intellectually disabled. *Research in Developmental Disabilities, 34(2)*, 855-863. Doi: 10.1016/j.ridd.2012.11.004.
- Farber, G. (2015). Social perception towards Deafness: how could it influence Deaf identity development and the Deaf community. *Gallaudet Chronicles of Psychology, 3* (1), 10-13
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis*. New York: The Guilford Press.
- Hetu, R., Getty, L., & Waridel, S. (1994). Attitudes towards co-workers affected by occupational hearing loss II: Focus groups interviews. *British Journal of Audiology, 28(6)*, 313-325. Doi: 10.3109/03005369409077315
- Hunsaker, A. (2014). The effects of peer tutoring on junior high general education students' attitudes towards students with severe disabilities. (*Masters thesis*). Retrieved from Brigham Young University, <http://scholarsarchive.byu.edu>
- Kim, H.-Y. (2013). Statistical notes for clinical researchers: assessing normal distribution. *Restorative Dentistry & Endodontics, 38(1)*, 52-54. doi: 10.5395/rde.2013.38.1.52
- Ministry of Education Malaysia. (2013). *Malaysia Education Blueprint 2013-2025 (Preschool to Post-secondary Education)*. Retrieved from <http://www.moe.gov.my>
- Nikolarazin, M., & Raybould, N. (2011). A comparative study of children's attitude towards deaf children, children in wheelchairs and blind children in Greece and in the UK. *European Journal of Special Needs Education, 16(2)*, 167 – 182. doi: 10.1080/08856250110041090.
- People With Disabilities Act. (2008). Law of Malaysia. Act 685, Article 28. Retrieved from <http://www.jkm.gov.my/jkm>
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90(5)*, 751-783. Doi: 10.1037/0022-3514.90.5.751
- Rosenbaum, P. L., Armstrong, R. W., & King, S. M. (1986). Children's Attitudes Toward Disabled Peers: A Self-Report Measure. *Journal of Pediatric Psychology, 11* (4), 517-530.

- Schroedel, J.G., & Schiff, W. (1972). Attitudes towards Deafness among several Deaf and hearing populations. *Rehabilitation Psychology, 19* (2), 59-70
- Shiappa, E., Gregg, P. B., & Hewes, D. E. (2005). The parasocial contact hypothesis. *Communication Monographs, 72*(1), 92-115. Doi: 10.1080/0363775052000342544
- Vignes, C., Godeau, E., Sentenac, M., Coley, N., Navarro, F., Grandjean, H., & Arnaud, C. (2009). Determinants of students' attitudes towards peers with disabilities. *Developmental Medicine & Child Neurology, 51*, 473-479.
- Vonofakou, C., Hewstone, M., & Voci, A. (2007). Contact with outgroup friends as a predictor of meta-attitudinal strength and accessibility of attitudes towards gay men. *Journal of Personality and Social Psychology, 92*, 804-820.
- Yuker, H. E., & Hurley, M. K. (1987). Contact and attitudes toward persons with disabilities: The measurement of intergroup contact. *Rehabilitation Psychology, 32*, 145-154