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DISCOMFORT, UNCERTAINTY AND FEAR SURROUNDING THE SOCIAL INCLUSIVITY OF PWDs AT WORK

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Abstract

The main aim of this study is to identify factors that may affect the quality of interaction and attitude of the public towards PWDs in Malaysia utilizing Interactions with Disabled Person's Scale (IDP). It is an analysis instrument with 20-item scale, which were then divided into six correlated dimensions (Discomfort, Sympathy, Uncertainty, Fear, Coping and Vulnerability) tapping different aspects of discomfort during contact with PWDs. In this research, subscales representing 3 dimensions (Discomfort, Uncertainty and Fear) out of the 6 IDP dimensions were utilized to measure interaction and, 3 variables (Gender, Level of Education and Level of Income) were further engaged in order to understand their influence to the measured interaction. Employee from a huge listed organization with branches all over the country were chosen as the respondent of this study. Descriptive analysis method was utilized to analyse accumulated data. Frequencies, percentages and Crosstabulation methods were used to produce results of data that were then compared between categories of respondents. Next, the results were further tested with Chi-Square Test for evidence of relationship before finally tested with Gamma Coefficient for the strength of relationship. Female respondents have higher tolerance to reject the feeling of discomfort, hinted a higher level of confidence and indicated a higher level of openness in communicating with PWDs as compared to male respondents. Respondents with higher level of education have higher capacity to overcome the feeling of discomfort, possess higher capability to communicate with confidence and were more ready to communicate openly with PWDs.

Keywords: People with disabilities, social inclusion, IDP.

1. Introduction

An attitude is a feeling toward a person or thing. In medicine, a physician's attitude toward a patient (i.e., a disabled person) or situation is important because prevailing attitudes and misconceptions can be potential barriers to successful diagnosis and treatment. More alarming than that, negative attitudes of peers may adversely influence the beliefs of other physicians, compounding the adverse outcomes of the negative attitudes (Tervo et al., 2002). Numbers of research to understand the attitude of public towards People with Disabilities (PWDs) were conducted. The results show that attitudes towards disabled people have improved. Prejudice towards disabled people, however, is still widespread. Respondents (the public) from a conducted research expressed views that suggest they see disabled people as less capable than non-disabled people (Stanlland, 2010). A research that was done in British indicated that 43% of the British public say they do not know anyone who is disabled. Many are worried that they will do or say the wrong thing when talking to disabled people (Aiden & McCarthy, 2014). Prejudice that people have against PWDs may originate from lack of communication with them, thus, creating misunderstanding. Hence, understanding the perception and interaction pattern of the public toward PWDs would be utmost important prior to deciding measures that may effectively counter such negative attitude. Interactions with Disabled Person's Scale (IDP) is one of the well-known and reliable instruments to measure attitudes towards PWDs. Invented by Gething in the year 1991, IDP was designed for such purpose. It is an analysis instrument with 20-item scale which were then divided into six correlated dimensions (Discomfort, Sympathy, Uncertainty, Fear, Coping and Vulnerability) tapping different aspects of discomfort during contact with PWDs (Forlin et al., 1999). This research attempted to look into the measuring of public attitudes towards PWDs in Malaysia utilizing IDP.

2. Problem Statement

Study on the changes of the attitudes and treatment towards PWDs was done by Edmonds (2005) and Opoku-Boadi (2015). They both categorized the period of transformation into three stages/models that are the Charity Model (principal up to WWII), the Medical Model (after WWII) and the Social Model (from 70s onwards). According to the Charity Model, PWDs were viewed by the society as dependent and with no capacity to contribute to their communities. Basic survival rather than empowerment was the priority in the context of aid. Extreme opinion even suggested PWDs as dangerous, weird, and scary and need to be "institutionalized" for the "good and protection of society". During the period of Medical Model, PWDs were perceived as "sick" and empowerment was limited to achieving functional independence through rehabilitation. This allowed medical professional to control the lives of PWDs. They were institutionalized and isolated from the community. Input by PWDs or even their family members were not normally viewed as a necessary in decision-making process. The Social Model emerged as a result of a political movement led by PWDs to deconstruct the medical model of disability. The rights of persons with disabilities and the importance of overcoming economic, social, and environmental barriers that impede their ability to participate in community life fully were highlighted.

The harder part of being disabled is that being regarded as disabled which focuses less on the extent of an individual's actual impairment and more on how others perceive the individual, as well as the effect

of those perceptions on the attitudes toward, and assumptions about, the individual's abilities (Merckerson, 2017). Such understanding influences attitudes towards disability. Though compared to decades ago the level of understandings and consciousness towards PWDs has increased to a significant positive degree in various dimensions and manifestations, differences in terms of culture-to-culture and countries do exist (Singh, 2010). Inclusive measures for the disabled typically include the integration of people with special needs in normalized social groups which lacking that specific need or difficulty. This is seen as the only way to achieve inclusive cohabitation and thus an improved quality of life for everyone. People with special needs are forced to fit in societies that are too busy to focus on such needs. If those who are considered "normal" do not show a favorable attitude toward the inclusion of those who do not have their characteristics, they will not be able to help them reach this goal and inclusion will be doomed (Novo-Corti, 2010). The creating of such favorable attitude is a huge challenging task and yet it (the attitude) is the most important factor that may bring lasting positive change on public's view and understanding about disability.

The relationship between the attitudes and the behaviour can better be understood if we accept the assumption that human beings are rational enough to take into account any implication that may result from their actions. In other words, a person learns from experience how the social environment reacts to his/her reactions and behaves accordingly (Gonen & Grinberg, 2016). The problems were the prevailing social norms, environmental barriers, and negative attitudes constructed and held by other members of society towards disability. Social inclusion helps decrease attitudinal barriers against them and it is society that has to adapt to impairment, not the individual to society. Study conducted by Kornélia Lazányi (2014) noted that those who have some experience in living/working with PWDs are far more understanding, accepting and willing to engage in interactions, than those, who do not have such experience. Hence, analysing history of past interactions, the quality of interactions and factors that influence both are key in understanding public attitude towards PWDs.

3.   Research Questions

The research attempted to look into factors or variables that influences the quality of interaction of the public towards PWDs in Malaysian context. Subscales representing 3 dimensions (Discomfort, Uncertainty and Fear) out of the 6 IDP dimensions were utilized to measure interaction and, 3 variables (gender, level of education and level of income) were further engaged in order to understand their influence to the measured interaction. The main question for the research is, "Do gender, level of education and level of income affect the quality of interaction and attitude of the public towards PWDs (hence their social inclusivity) in Malaysia?"

4.   Purpose of the Study

The main aim of this study is to look into factors or variables that may affect the quality of interaction and attitude of the public towards PWDs (hence, their social inclusivity) in Malaysia. This paper is divided into seven parts. The "Introduction" discussed in brief about the attitude and behavior towards disability, misconception about disability and the need to employ reliable instrument to measure public's attitude towards PWDs in Malaysia. Second, third and fourth part stated the Problem Statement, Research Questions

and Purpose of Study for the research. Fifth, the "Research Methods" provided explanation about the research design, instrument, data collection process and analyzing style utilized in this research. Sixth, the "Findings" provided data and analysis summary on demographic trend of respondents, statistical data on the pattern of interaction of the public towards PWDs in Malaysia (measured through IDP), and the effect of age, education and income variables to such interaction. The final part, the "Conclusion", summarized and concluded the whole findings and issues highlighted in this paper.

5. Research Methods

The main aim of this research was to identity the public trend toward the social inclusivity of persons with disabilities (PWDs) at work place. Descriptive analysis method was utilized to analyze accumulated data. Frequencies, percentages and cross tabulation methods were used to produce results of data that were then compared between categories of respondents. Next, the results were further tested with Chi-Square Test for evidence of relationship before finally tested with Gamma Coefficient for the strength of relationship. Employees from a huge listed organization with branches all over the country were chosen as the respondent of this study. Along with the staffs form the head quarter (both male and female regardless of age), staffs from 11 branches and 1 subsidiary (all located in Kelang Valley) were involved in this research. 4 categories of staff (Executive Management, Executive Technical, Non-Executive Management and Non-Executive Technical) were included in this research. In order to minimize answering errors, researchers went to all the branches and personally briefed the structure of the questionnaire to the appointed person-in-charge prior to distributing them.1200 questionnaires were distributed and 700 were returned (58.4%). 671 questionnaires (55.9%) were valid with information and utilized in this research.

The study utilized a questionnaire that was partially developed by the researchers combined with the Interaction with Disabled Persons Scale (IDP). The Interactions with Disabled Person's Scale (IDP) was designed by Gething in 1991 to measure attitudes towards people with a disability. IDP was developed due to the fact that there were a limited number of scales assessing attitudes towards people with disabilities that are suitable for use outside of United States (Gething, 1991). The instrument was then further refined by Forlin et al. (1999) who re-cluster the 20 original subscales into 6 correlated dimensions (Discomfort, Sympathy, Uncertainty, Fear, Coping and Vulnerability) and tested in other countries. Her study confirmed that IDP is equally valid to be used elsewhere than the ground where it was originally designed and meant to be used. All the dimensions from IDP were tested in this research and 3 (Discomfort, Uncertainty and Fear) will be presented in this paper. The dimension of Discomfort, Uncertainty and Fear was then crosstabulated with Gender, Level of Education and Level of Income variables for correlation identification. The data analysis for this study was done using SPSS software (version 22).

6. Findings

6.1. Demographic Trend of Respondents

A total of 671 valid questionnaires were used as a source of data for this study (see Table 01). An almost balance participation between male (45.9%) and female (54.1%) was noted. The involvement of Management Staffs for both categories of executive and non-executive were higher (Executive category:

34.4%; Non-Executive category: 38.9%) if compared to Technical Staffs (Executive category: 9.7%; Non-Executive category: 17%). Majority of respondents were middle-aged staffs ageing 39 years old or younger (67.9%). The age category of 30-39 years old recorded the highest participation of 41.4%. This trend is aligned with other items such as Length of Service and Level of Income in which respondents were noticeably centered in the middle range of length of services (20 years and below: 78.7%) and level of income (RM 5000 and below: 71.5%). In terms education level, majority of the respondents were either a certificate/diploma holder (42.6%) or a Degree/Master holder (41.7%) (Baidi & Ilias, 2019).

Table 01. Description of the sample

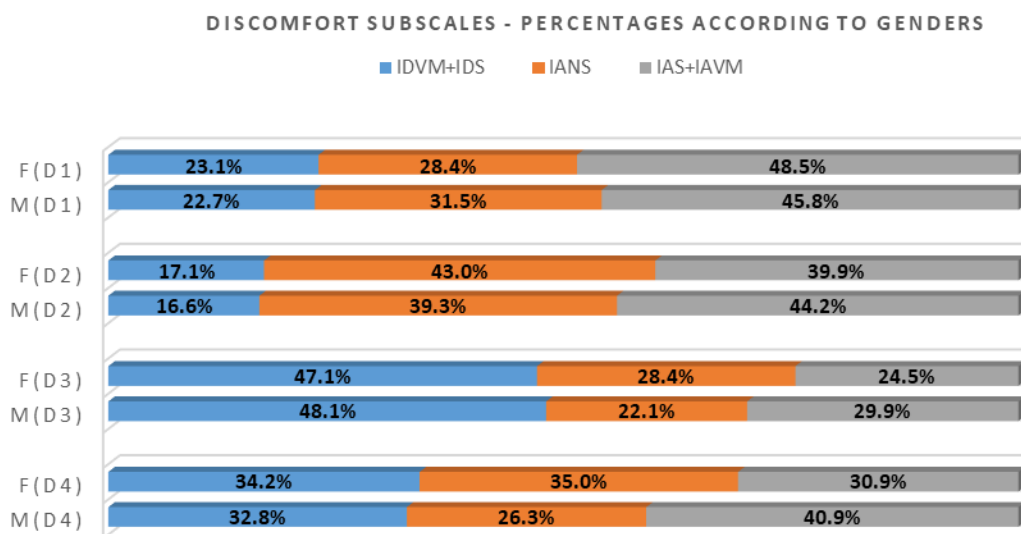|	Frequency (N)	Percentage (%)
1. Categories		
Executive – Management	231	34.4
Executive – Technical	65	9.7
Non-Executive – Management	261	38.9
Non-Executive – Technical	114	17.0
2. Gender		
Male	308	45.9
Female	363	54.1
3. Age Categories		
20-29 Years Old	178	26.5
30-39 Years Old	277	41.4
40-49 Years Old	144	21.3
50-59 Years Old	72	10.7
4. Level of Education		
Certificate/Diploma	286	42.6
Degree/Master	280	41.7
PhD	7	1.0
Other Special Qualification	98	14.6
5. Length of Services		
Less than 10 years	325	48.4
11 – 20 years	203	30.3
21 – 30 years	85	12.7
More than 30 years	58	8.6
6. Level of Income		
Less than RM 3000	227	33.8
RM 3000 – RM 5000	253	37.7
RM 5000 – RM 10 000	147	21.9
More than RM 10 000	44	6.6

Note: N=671

6.2. Discomfort of Contact with PWDs

The dimension of Discomfort for IDP is represented by 4 subscales as listed below:

- Discomfort Subscale 1 (D1): Item11 - *I cannot help staring at them.*

- Discomfort Subscale 2 (D2): Item16 - *I feel overwhelmed with the discomfort about my lack of disability.*

- Discomfort Subscale 3 (D3): Item17 - *I am afraid to look at them straight in the face.*

- Discomfort Subscale 4 (D4): Item18 - *I tend to make contacts with them only in brief and finish them as quickly as possible.*

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In term of "Gender", it was noted from Figure 01 that female respondents exhibited slightly lower percentages (D2, D3 and D4) of agreeing (IAS+IAVM) to the subscales representing "Discomfort". In other words, female respondents have higher tolerance to reject the feeling of discomfort while communicating with PWDs as compared to male respondents. However, the difference of percentages were minimal that they failed to be reflected through the correlation analysis conducted. Hence, referring to Table 02, it could be concluded that there is no evidence of relationship between the feel of discomfort in communication with PWDs (all subscale) with gender (D1: Chi-Square = 5.629, df = 4, p > 0.05; D2: Chi-Square = 1.743, df = 4, p > 0.05; D3: Chi-Square = 4.976, df = 4, p > 0.05; D4: Chi-Square = 8.912, df = 4, p > 0.05).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much
M – Male; F – Female

Figure 01. Crosstabulation between IDP Discomfort Subscales and Gender

Table 02. The relationship between IDP Discomfort Subscales with Gender

Pearson Chi-Square	Discomfort Subscale 1			Discomfort Subscale 2			Discomfort Subscale 3			Discomfort Subscale 4		
	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)
	5.629[a(i)]	4	.229	1.743[a(ii)]	4	.783	4.976[a(iii)]	4	.290	8.912[a(iv)]	4	.063

a(i). The minimum expected count is 28.46.   a(ii). The minimum expected count is 24.79.   a(iii). The minimum expected count is 29.84.a(iv). The minimum expected count is 41.31.
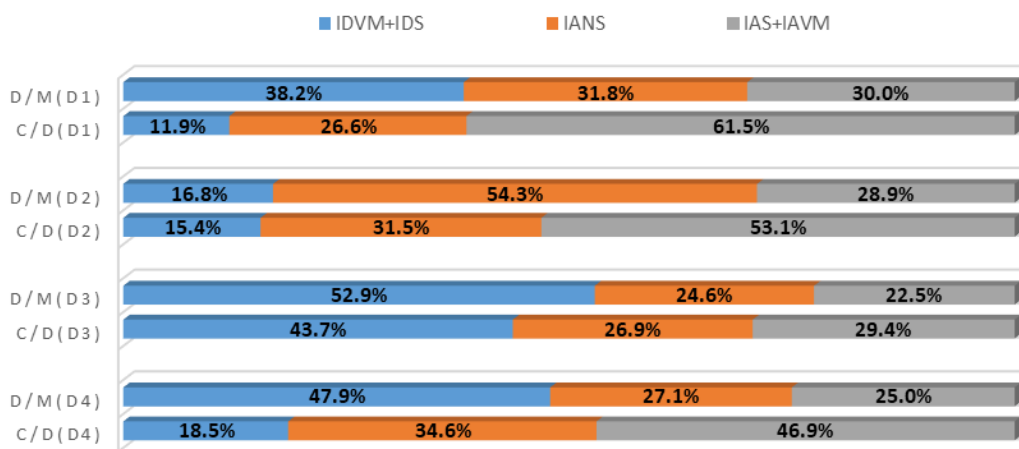
Two categories of data (C/D: Certificate & Diploma holder and D/M: Degree & Master holder) were compared to understand the trend of discomfort in communication (with PWDs) based on the "Level of Education" possess by respondents. Figure 02 is reflecting a clear trend that a higher education level incline to exhibit a lower percentage of agreement to the discomfort subscales. In other words, individuals with higher level of education have higher capability to overcome the feeling of discomfort when communicating with PWDs. This trend is notable in all subscales (even in D3 even though the difference of percentages are less significance if compared to D1, D2 and D4) and eventually reflected in the correlation analysis conducted. Referring to Table 03, it could be concluded that there is a strong evidence of relationship (partial) between the feel of discomfort in communication with PWDs (subscale D1, D2 and D4) and level

of education (D1: Chi-Square = 97.731, df = 12, p < 0.05; D2: Chi-Square = 50.136, df = 12, p < 0.05; D4: Chi-Square = 61.680, df = 12, p < 0.05). Only subscale D3 exhibits no evidence of relationship between the feel of discomfort in communication with PWDs with level of education (D3: Chi-Square = 16.031, df = 12, p > 0.05). Relationship strength analysis was further conducted with Gamma Coefficient (Table 04) and it was identified that the (negative) relationship between the feel of "Discomfort" in communication with PWDs and "Level of Education" was weak for D1 and D4 with recorded value between 0.2 and 0.6 (Coefficient for D1= .212; Coefficient for D4= .253). D3 was categorized as "no association" as the recorded value was below 0.2 (Coefficient for D3= .156)

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much

D/M – Degree/Master; C/D – Certificate/Diploma

Figure 02. Crosstabulation between IDP Discomfort Subscales and Level of Education

Table 03. The relationship between IDP Discomfort Subscales with Level of Education

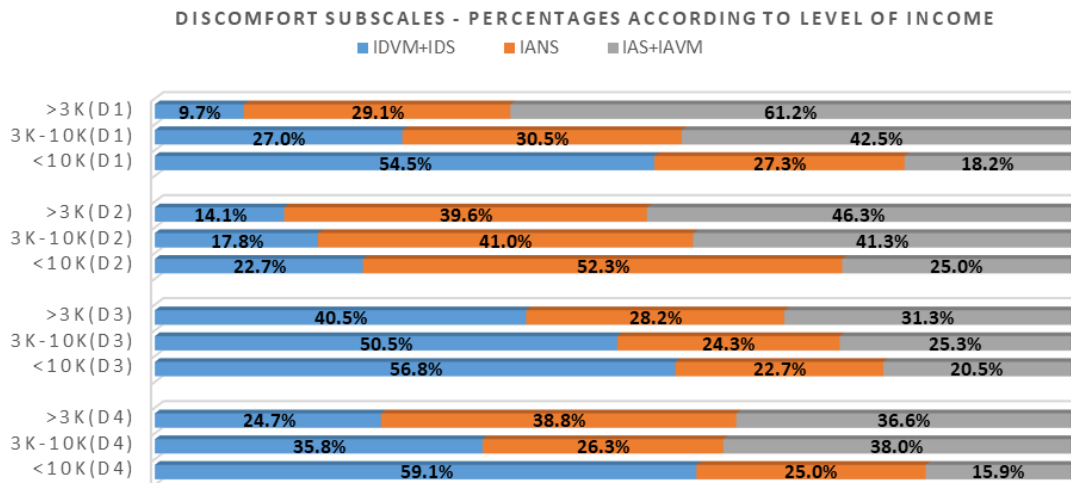| Pearson Chi-Square	Discomfort Subscale 1			Discomfort Subscale 2			Discomfort Subscale 3			Discomfort Subscale 4		
	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)
	97.731[a(i)]	12	.000	50.136 [a(ii)]	12	.000	16.031 [a(iii)]	12	.190	61.680 [a(iv)]	12	.000

a(i). The minimum expected count is .65.   a(ii). The minimum expected count is .56.   a(iii). The minimum expected count is .68.
a(iv). The minimum expected count is .94.

Table 04. The relationship strength between IDP Discomfort Subscales and Level of Education

Discomfort Subscale 1					
		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Gamma	-.212	0.46	-4.705	.000
N of Valid Cases		671			
Discomfort Subscale 2					
		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Gamma	-.156	.053	-2.977	.003
N of Valid Cases					
Discomfort Subscale 4					
		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Gamma	-.253	0.45	-5.626	.000
N of Valid Cases					

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Figure 03 showed a consistent trend (except for D4) indicating that individuals with a higher "Level of Income" tend to agree less with "Discomfort" subscales. In other words, individuals with higher level of income have higher tendency to be able to communicate in comfort with PWDs as compared to individuals with lower level of income. This trend is consistent with the effect of "Level of Education" against "Discomfort" subscales stated earlier. Referring to Table 05, it could be concluded that there is a strong evidence of relationship (partial) between the feel of "Discomfort" in communication with PWDs (subscale D1 and D4) and "Level of Income" (D1: Chi-Square = 63.999, df = 12, p < 0.05; D4: Chi-Square = 42.640, df = 12, p < 0.05). Subscale D2 and d3 exhibits no evidence of relationship (D2: Chi-Square = 15.381, df = 12, p > 0.05; D3: Chi-Square = 23.078, df = 12, p > 0.05). Relationship strength analysis was further conducted with Gamma Coefficient (Table 06) and it was identified that the (negative) relationship between the feel of "Discomfort" in communication with PWDs" and "Level of Income" was weak (and only) for D1 with recorded value between 0.2 and 0.6 (Coefficient for D1= .255). D4 was categorized as "no association" as the recorded value was below 0.2 (Coefficient for D4= .102).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much

Figure 03. Crosstabulation between IDP Discomfort Subscales and Level of Income

Table 05. The relationship between IDP Discomfort Subscales with Level of Education

Pearson Chi-Square	Discomfort Subscale 1			Discomfort Subscale 2			Discomfort Subscale 3			Discomfort Subscale 4		
	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)
	63.999 a(i)	12	0.000	15.381a(ii)	12	0.221	23.078a(iii)	12	0.027	42.640a(iv)	12	0.000

a(i). The minimum expected count is 4.07.   a(ii). The minimum expected count is 3.54.
a(iii). The minimum expected count is 4.26.   a(iv). The minimum expected count is 5.90

Table 06.   2 Panel E. The relationship strength between IDP Discomfort Subscales and Level of Income

		Discomfort Subscale 1				Discomfort Subscale 4			
		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance	Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Gamma	-.255	0.41	-6.038	.000	-.102	.042	-2.457	.014
N of Valid Cases		671				671			

a. Not assuming the null hypothesis.
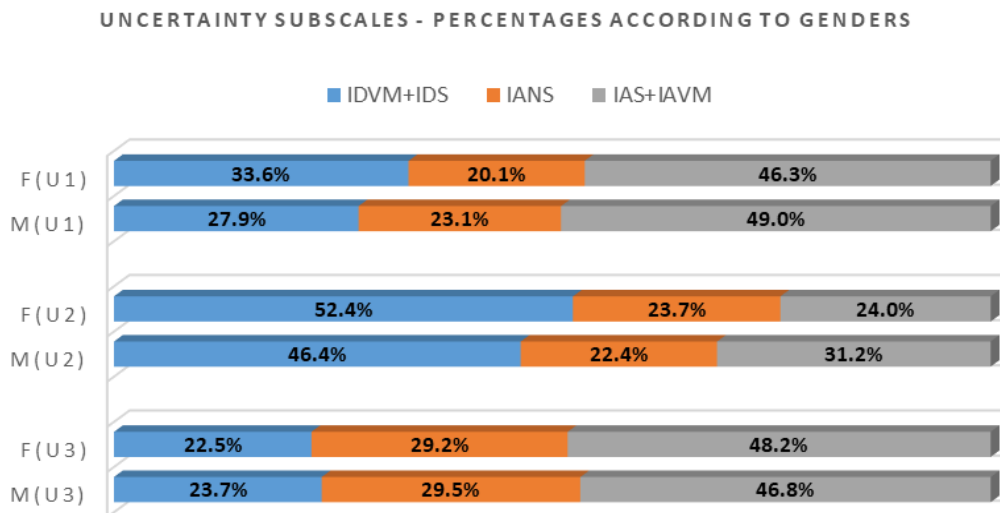b. Using the asymptotic standard error assuming the null hypothesis.

6.3. Uncertainty in terms of contact with PWDs

The dimension of Uncertainty for IDP in this study is represented by 3 subscales as listed below:

- Uncertainty Subscale 1 (U1): Item 6 - *I feel ignorant about disabled people.*
- Uncertainty Subscale 2 (U2): Item 9 - *I feel uncomfortable and find it hard to relax when communicating with them.*
- Uncertainty Subscale 3 (U3): Item 12 - *I feel unsure because I don't know how to behave.*

In term of "Gender", it was observable from Figure 04 that female respondents recorded slightly lower score percentages (U1 and U2, except U3) of agreeing to subscales representing "Uncertainty". It is expectable that female respondents may exhibit a higher level of confidence in communicating with PWDs as compared to male respondents. However, as noted earlier, the difference of percentages were minimal that they failed to be reflected through the correlation analysis conducted. Hence, referring to Table 07, it could be concluded that there is no evidence of relationship between the feel of "Uncertainty" (lack of confidence) in communication with PWDs (all subscale) and "Gender" (U1: Chi-Square = 4.623, df = 4, p > 0.05; U2: Chi-Square = 5.772, df = 4, p > 0.05; U3: Chi-Square = 2.497, df = 4, p > 0.05).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much
M – Male; F – Female

Figure 04. Crosstabulation between IDP Uncertainty Subscales and Gender

Table 07. The relationship between IDP Uncertainty Subscales with Gender

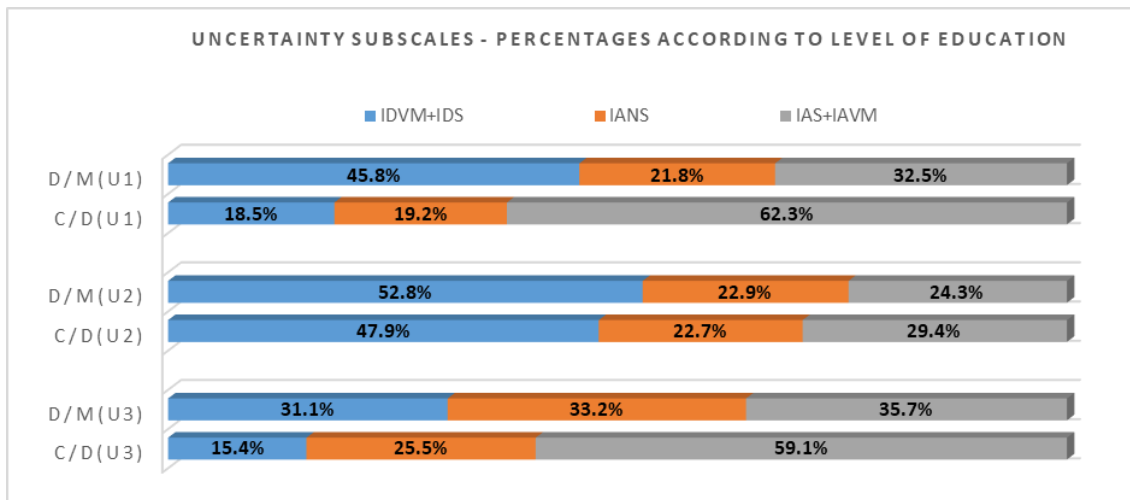| Pearson Chi-Square	Uncertainty Subscale 1			Uncertainty Subscale 2			Uncertainty Subscale 3		
	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)
	4.623[a(i)]	4	.328	5.772[a(ii)]	4	.329	2.497[a(iii)]	4	.645

a(i). The minimum expected count is 39.93.   a(ii). The minimum expected count is .46   a(iii). The minimum expected count is 35.34.

Figure 05 indicated a clear trend of a lower tendency for respondents with higher "Level of Education" to agree to the "Uncertainty" subscales. Meaning, individuals with higher level of education have higher capability to communicate with confidence to PWDs. This trend is notable in all subscales

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(even in U2 even though the difference of percentages are less significance if compared to U1 and U3) and was reflected in the correlation analysis conducted. Referring to Table 08, it could be concluded that there is a strong evidence of relationship (partial) between the feel of "Uncertainty" in communication with PWDs (subscale U1 and U3) and "Level of Education" (U1: Chi-Square = 69.267, df = 12, p < 0.05; U3: Chi-Square = 39.123, df = 12, p < 0.05). Only subscale U2 exhibits no evidence of relationship (U2: Chi-Square = 19.978, df = 12, p > 0.05). Relationship strength analysis was conducted with Gamma Coefficient (Table 09) and it was identified that the (negative) relationship between the feel of "Uncertainty" in communication with PWDs" and "Level of Education" was only weak for U1 and U3 with recorded value between 0.2 and 0.6 (Coefficient for U1= .228; Coefficient for U3= .210).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much
D/M – Degree/Master; C/D – Certificate/Diploma

Figure 05. Crosstabulation between IDP Uncertainty Subscales and Level of Education

Table 08. Crosstabulation between IDP Uncertainty Subscales and Level of Education

Pearson Chi-Square	Uncertainty Subscale 1			Uncertainty Subscale 2			Uncertainty Subscale 3		
	Value	**df**	**Asymptotic Significance (2-sided)**	**Value**	**df**	**Asymptotic Significance (2-sided)**	**Value**	**df**	**Asymptotic Significance (2-sided)**
	69.267[a(i)]	12	.000	19.978[a(ii)]	12	.173	39.123[a(iii)]	12	.000

a(i). The minimum expected count is .91. a(ii). The minimum expected count is .01 a(iii). The minimum expected count is 35
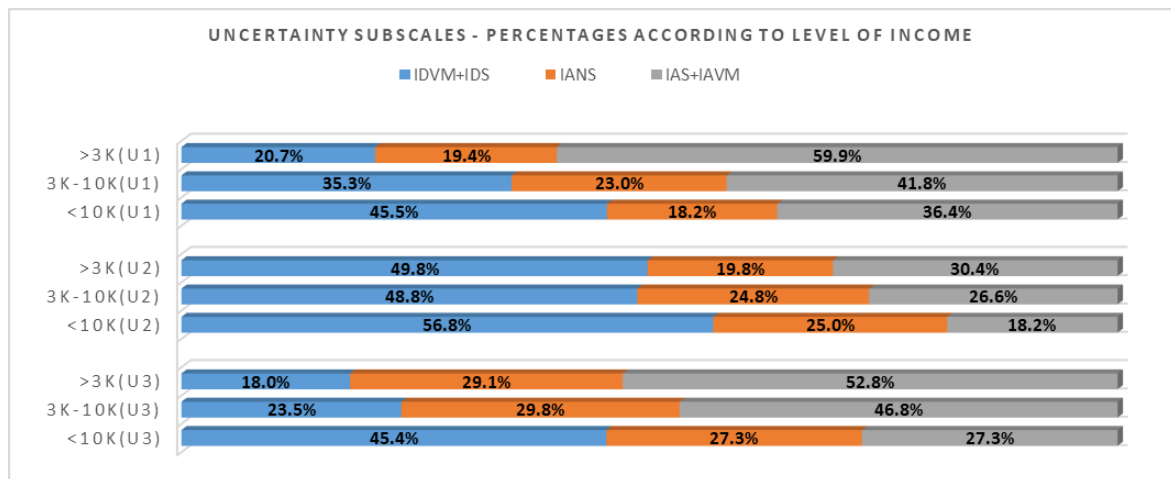
Table 09. The relationship strength between IDP Uncertainty Subscales and Level of Education

		Uncertainty Subscale 1				Uncertainty Subscale 3			
		Value	**Asymptotic Standard Error[a]**	**Approximate T[b]**	**Approximate Significance**	**Value**	**Asymptotic Standard Error[a]**	**Approximate T[b]**	**Approximate Significance**
Ordinal by Ordinal	Gamma	-.228	0.44	-5.167	.000	-.210	.047	-4.420	.000
N of Valid Cases		671				671			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

Figure 06 exhibited a consistent trend indicating that individuals with a higher "Level of Income" tend to agree less with "Uncertainty" subscales. Looking only at the score of percentages, it is maybe assumable that individuals with higher level of income may have higher tendency to being able to communicate well with PWDs as compared to individuals with lower level of income. Referring to Table

10 however, the strong evidence of relationship (partial) between the feel of "Uncertainty" in communication with PWDs and "Level of Income" could only be noted in subscale U1 (Chi-Square = 38.782, df = 12, $p < 0.05$). Subscale U2 and U3 exhibited no evidence of relationship (U2: Chi-Square = 15.753, df = 15, $p > 0.05$; U3: Chi-Square = 24.483, df = 12, $p > 0.05$). Further conducted analysis on relationship strength with Gamma Coefficient (Table 11) identified that even U1 is categorized as "no association" as the recorded value was below 0.2 (Coefficient for U1= .180).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much

Figure 06. Crosstabulation between IDP Uncertainty Subscales and Level of Income

Table 10. The relationship between IDP Uncertainty Subscales with Level of Income

Pearson Chi-Square	Uncertainty Subscale 1			Uncertainty Subscale 2			Uncertainty Subscale 3		
	Value	**df**	**Asymptotic Significance (2-sided)**	**Value**	**df**	**Asymptotic Significance (2-sided)**	**Value**	**df**	**Asymptotic Significance (2-sided)**
	38.782[a(i)]	12	.000	12.753[a(ii)]	15	.621	24.483[a(iii)]	12	.017

a(i). The minimum expected count is .91.　　a(ii). The minimum expected count is .01　　a(iii). The minimum expected count is 35.34

Table 11. The relationship strength between IDP Uncertainty Subscales and Level of Income

		Uncertainty Subscale 1			
		Value	**Asymptotic Standard Error[a]**	**Approximate T[b]**	**Approximate Significance**
Ordinal by Ordinal	Gamma	-.180	0.40	-4.462	.000
N of Valid Cases		671			

a. Not assuming the null hypothesis.
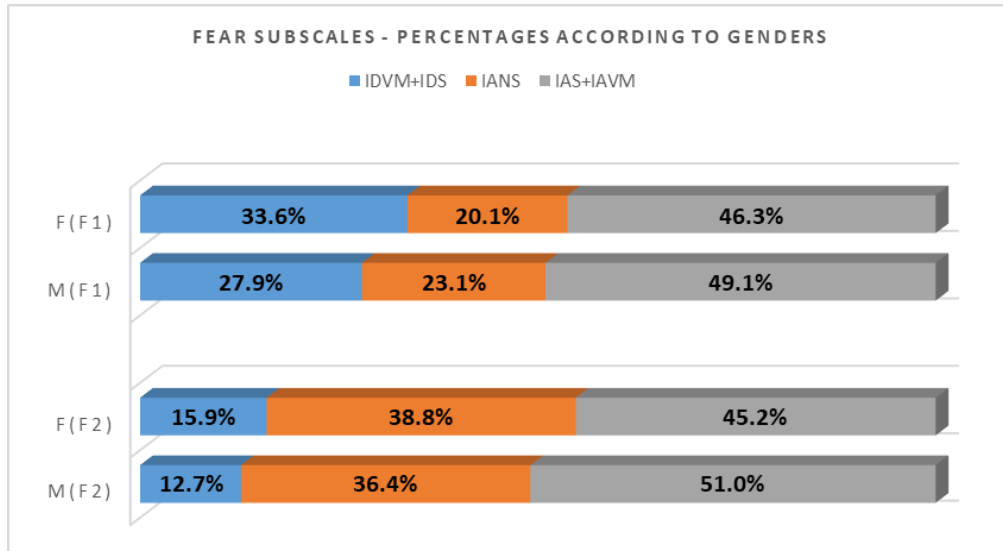b. Using the asymptotic standard error assuming the null hypothesis.

6.4. Fear in terms of contact with PWDs

The dimension of Fear for IDP is represented by 2 subscales as listed below:

- Fear Subscale 1 (F1): Item 7 - *I am grateful that I do not have such a burden.*
- Fear Subscale 2 (F2): Item 20 - *I dread the thought that I could eventually end up like them.*

Figure 07 indicated that female respondents again recorded slightly lower score percentages (for both subscales F1 and F2) of agreeing to the subscales representing "Fear". This is a similar trend noted earlier in discussion related to "Discomfort" and "Uncertainty" dimension of IDP. Hence, it is expectable that female respondents may exhibit a higher level of openness (without fear or prejudice) and readiness in

communicating with PWDs as compared to male respondents. However, again, the difference of percentages were minimal that they failed to be reflected through the correlation analysis conducted. Hence, referring to Table 12, it could be concluded that there is no evidence of relationship between the feel of fear to communicate with PWDs (both subscale) and gender (F1: Chi-Square = 2.737, df = 4, p > 0.05; F2: Chi-Square = 3.432, df = 4, p > 0.05).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much
M – Male; F – Female

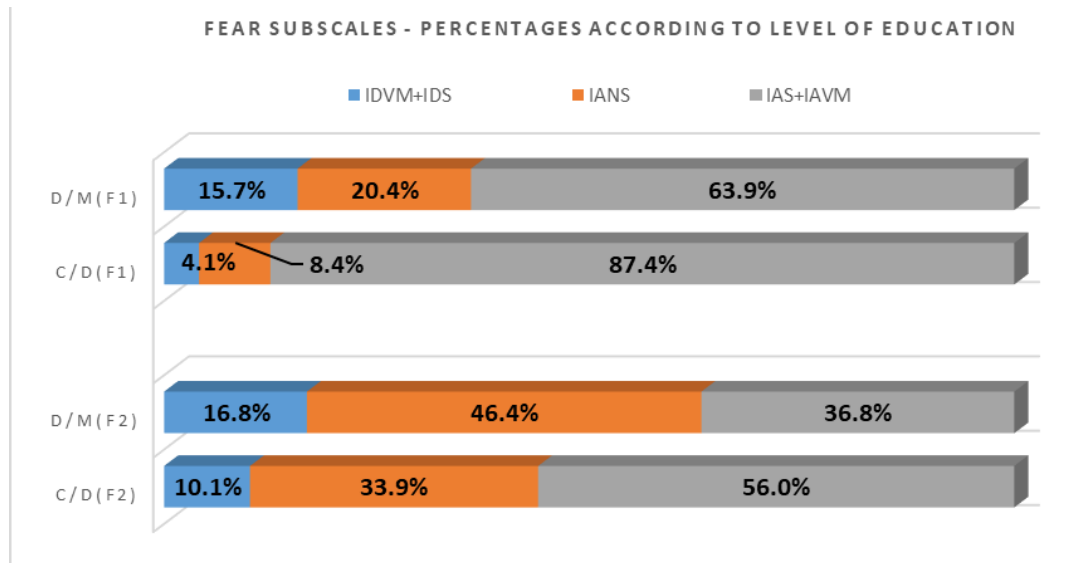**Figure 07.** Crosstabulation between IDP Fear Subscales and Gender

Table 12. The relationship between IDP Fear Subscale with Gender

Pearson Chi-Square	Fear Subscale 1			Fear Subscale 2		
	Value	**df**	**Asymptotic Significance (2-sided)**	**Value**	**df**	**Asymptotic Significance (2-sided)**
	2.737[a(i)]	4	.603	3.432[a(ii)]	4	.488

a(i). The minimum expected count is 11.93.   a(ii). The minimum expected count is 19.28

Figure 08 too (as discussed earlier in "Discomfort" and "Uncertainty" dimensions) indicated a clear trend of a lower tendency for respondents with higher "Level of Education" to agree to the "Fear" subscales. Meaning, individuals with higher level of education are more ready to communicate openly with PWDs. This trend is notable in both subscales and was reflected in the correlation analysis conducted. Referring to Table 13, it could be concluded that there is a strong evidence of relationship between the feel of fear to communicate with PWDs and level of education (F1: Chi-Square = 69.153, df = 12, p < 0.05; F2: Chi-Square = 49.538, df = 12, p < 0.05). However, further conducted analysis on Relationship Strength with Gamma Coefficient (Table 14) identified that both F1 and F2 were only categorized as "no association" as the recorded value for both were below 0.2 (Coefficient for F1= .180; Coefficient for F2=.152).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much

D/M – Degree/Master; C/D – Certificate/Diploma

Figure 08. Crosstabulation between IDP Fear Subscales and Level of Education

Table 13. The relationship between IDP Fear Subscales with Level of Education

Pearson Chi-Square	Fear Subscale 1			Fear Subscale 2		
	Value	df	Asymptotic Significance (2-sided)	Value	df	Asymptotic Significance (2-sided)
	69.153[a(i)]	12	.000	49.538[a(ii)]	12	.000

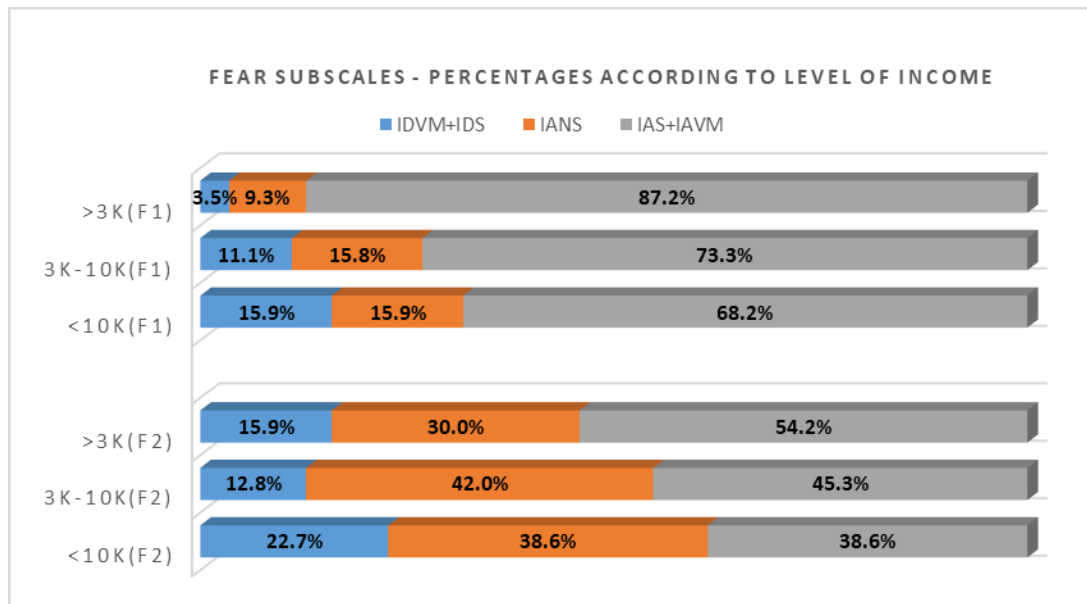a(i). The minimum expected count is .27   a(ii). The minimum expected count is .44

Table 14. The relationship strength between IDP Fear Subscales and Level of Education

		Fear Subscale 1				Fear Subscale 2			
		Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance	Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Gamma	-.117	0.52	-2.255	.000	-.152	.052	-2.935	.000
N of Valid Cases		671				671			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

Figure 09 exhibited a consistent trend indicating that individuals with a higher "Level of Income" tend to agree less with "Fear" subscales, a similar trend noted from "Discomfort" and "Uncertainty" dimension's discussion. Score of percentages indicated the possibility of individuals with higher level of income to be able to communicate well (without fear or prejudice) with PWDs as compared to individuals with lower level of income. Referring to Table 15 however, the strong evidence of relationship (partial) between "Fear" of communication with PWDs and "Level of Income" could only be noted in subscale F1 (Chi-Square = 34.271, df = 12, p < 0.05). Subscale F2 exhibited no evidence of relationship (F2: Chi-Square = 23.644, df = 12, p > 0.05). Further conducted analysis on Relationship Strength with Gamma Coefficient (Table 16) identified that even F1 is categorized as "no association" as the recorded value was below 0.2 (Coefficient for F1= .153).

Note: IDVM – I disagree very much; IDS – I disagree somewhat; IANS – I am not sure; IAS – I agree somewhat; IAVM – I agree very much

Figure 09. Crosstabulation between IDP Fear Subscales and Level of Income

Table 15. The relationship between IDP Fear Subscales with Level of Income

	Fear Subscale 1			Fear Subscale 2		
Pearson Chi-Square	**Value**	**df**	**Asymptotic Significance (2-sided)**	**Value**	**df**	**Asymptotic Significance (2-sided)**
	34.271[a(i)]	12	.001	23.644[a(ii)]	12	.023

a(i). The minimum expected count is 1.70   a(ii). The minimum expected count is .44

Table 16. The relationship strength between IDP Fear Subscales and Level of Income

		Uncertainty Subscale 1			
		Value	**Asymptotic Standard Error[a]**	**Approximate T[b]**	**Approximate Significance**
Ordinal by Ordinal	Gamma	-.153	0.47	-3.175	.001
N of Valid Cases		671			

a. Not assuming the null hypothesis.
b. Using the asymptotic standard error assuming the null hypothesis.

7. Conclusion

Discomfort people feel about disability may stem from a lack of communication and understanding. Everyday interactions and greater public education about disability may increase understanding and acceptance of disabled people (Aiden & McCarthy, 2014). Interactions with Disabled Person's Scale (IDP) was designed to measure attitudes towards people with a disability. In this study, 3 out of 6 of its dimensions were engaged to understand the interaction attitudes of Malaysian toward PWDs. The 3 dimesions (Discomfort, Uncertainty and Fear) were then further crosstabulated with variables such as Gender, Level of Education and Level of Income. Statistical data for the study were purposely clustered into 3 large groups (IDVM+IDS, IANS and IAS+IAVM) for easier identification of the general trend of respondents' interaction attitude toward PWDs.

Statistical data for "Gender" indicated that female respondents exhibited slightly lower percentages of agreeing (IAS+IAVM) to subscales representing all tested dimensions. In other words, female

respondents have higher tolerance to reject the feeling of discomfort while communicating with PWDs, exhibit a higher level of confidence in communicating with PWDs and indicated a higher level of openness (without fear or prejudice) and readiness in communicating with PWDs as compared to male respondents. The result of these findings is aligned with earlier conducted research by Stanlland (2010) who noted, "Women are more likely than men to express positive attitudes towards disabled people". These findings also reconfirmed result attained by Forlin et al. (1999) who discovered, "female undergraduates students have more positive attitudes towards people with disabilities" compared to male undergraduate students. Tervo et al. (2002) also noted that "Gender and background in disability influenced attitudes. Male medical students were more likely to hold negative attitudes". However, the difference of percentages between male and female respondents from this research were minimal that they failed to be reflected through the correlation analysis conducted.

Statistical data for "Level of Education" from this study were constantly indicating a clear trend that a higher level of education incline to exhibit a lower percentage of agreement to the subscales representing all the tested dimensions. Respondents with higher level of education have higher capability to overcome the feeling of discomfort when communicating with PWDs, possess higher capability to communicate with confidence to PWDs and were more ready to communicate openly (without fear and prejudice) with PWDs. Findings by Stanlland (2010) too indicated that, "respondents with higher levels of education and those with higher incomes had more positive attitudes towards disabled people". Findings by Forlin et al. (1999) further suggested that, "those having lower levels of education in the normative sample showing greater discomfort in their interactions with people with a disability" further support the findings from this research. Results from correlation test using Crosstabulation method yielded partial results on the existence of evidence of relationship between "Level of Education" and tested subfactors. Though most of the subfactors indicated the existence of evidence of relationship with "Level of Education", results from conducted relationship strength test using Gamma coefficient suggested either the existing relationship were "weak" or "no association".

Statistical data for "Level of Income", identical to "Level of Education", showed a consistent trend indicating that respondents with a higher level of income tend to agree less with subscales representing all the tested dimensions. They may have higher tendency to be able to communicate well and in comfort with PWDs if compared to respondents with lower level of income. As stated above, this finding too was supported by earlier findings done by Stanlland (2010) who indicated, "a higher proportion of people in the top income band were very comfortable in all situations with regard to interacting with people with physical or sensory impairments". Results from correlation test using Crosstabulation method yielded partial results on the existence of evidence of relationship between "Level of Income" and tested subfactors. One very notable difference was that, upon tested with Gamma coefficient, among all subscale only 1 (D1) indicated the existence of a (weak) relationship. The other subscales were all indicating the score of less than 0.2 and hence categorized as "no association". The "Level of Income" therefore, is not a strong indicator that can be utilized to understand the pattern of behavior and interaction with PWDs in Malaysian context.

The problems of social exclusion of disabled people are viewed with different lenses for different societies, and for this reason it is expected that people's attitudes towards inclusion are different depending on the environment they are in (Novo-Corti, 2010). Changing attitudes towards particular groups of people

with disability requires additional information for the public to understand the specific experiences associated with these disabilities. Initiatives to support must include education, contact, information and family support so that they learn to understand the social experience of PWDs (Thompson et al., 2011). Interactions between the public with PWDs are utmost important because researches indicated that individuals who met a person with a disability tended to have more significant changes in personal attitude than those who had no contact. Constant reinforcement and refreshers are needed if attitude change is to become internalized and persistent (Daruwalla & Darcy, 2005). Further, the results of study conducted by Gonen and Grinberg (2016) also indicated the necessity to encourage individuals (i.e., students) to socialize with PWDs in order to strengthen the positive and favorable attitudes that will positively have impact on the success of the integration of PWDs into the community and society.

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