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ATTITUDES TOWARDS PEOPLE WITH INTELLECTUAL DISABILITY

**Attitudes towards People with Intellectual Disability in the UK and Libya: A Cross-  
Cultural Comparison**

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**Abstract**

**Background:** The attitude of the general population towards people with intellectual disability (ID) provides important background for policy development. Furthermore, because of changes in attitudes across cultures, it is vital to ground policy development for each country in data from that country.

**Aims:** This paper aimed to undertake a cross-cultural study, investigating attitudes to people with ID in Libya in the year 2011, and to compare the Libyan data with those for the UK.

**Methods and Procedures:** This paper provides a cross-cultural analysis of attitudes to people with ID, using a questionnaire study of three groups in Libya and in the UK: science students, psychology students and professionals in ID support. The questionnaire used was the established Community Living Attitude Scales for Mental Retardation (CLAS-MR).

**Outcomes and Results:** In terms of the four CLAS-MR sub-scales, the Libyan sample showed significantly less favourable scores on Empowerment, Similarity and Exclusion than the UK sample, but no significant difference on the Sheltering sub-scale. Within-country analysis indicated no main effects of gender on all four sub-scales in Libya and the UK.

**Conclusions:** This study is the first to undertake quantitative analysis of attitudes to people with ID in Libya. The attitudes were in general less favourable than in the UK and other Western countries, but showed similarities with studies of attitudes to people with ID in Pakistan.

What this paper adds:

This is the first study:

- (i) to assess quantitatively attitudes to people with ID in Libya;

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- (ii) to assess the attitudes of two sectors – staff working with people with ID, and University students;
- (iii) to compare attitudes to people with ID in Libya and in the UK, and the study therefore extends the considerable corpus previously established using the CLAS-MR.
- (iv) The paper provides baseline information that allows future researchers who collect data on attitudes to people with ID to evaluate the changes occurring as a consequence of interventions or events.

### Keywords

Arab, Community Living Attitude Scale for Mental Retardation, CLAS-MR, cross-cultural

## 1 Introduction

Every cultural group has its own way of thinking and feeling, and consequently acting and reacting. The study of how culture differs among groups, communities and societies typically necessitates a position of cultural relativism. Judging a society and how it acts towards specific events should be preceded by establishing evidence about the nature of cultural differences of that society and about the roots of those differences and their consequences.

Attitudes towards people with intellectual disability (ID) are a key factor both for education and for society, in that these attitudes lead to important consequences for the approaches taken politically, together with the consequent outcomes. Attitudes are influenced by a number of factors - physical, intellectual, social and emotional - and the experiences of the individual or the group. Positive attitudes can lead to decisions such as social and psychological acceptance of the person who has a disability (Tervo, Azuma, Palmer, & Redinius, 2002; Werner, Peretz, & Roth, 2015), improving programmes for people who have a disability - educational (Tindall, MacDonald, Carroll, & Moody, 2015); social (Kam & Wong, 2008; Keith, Bennetto, & Rogge, 2015); medical (Boyle et al., 2010; Ryan & Scior, 2014); and occupational (Tsang, Chan, & Chan, 2004; Uysal, Albayrak, Koçulu, Kan, & Aydin, 2014). By contrast, negative attitudes can lead to decisions such as rejection (Daruwalla & Darcy, 2005; Boer & Munde, 2014; Hassanein, 2015), segregation (Keller & Siegrist, 2010; Keith et al., 2015), and degradation (Panek & Jungers, 2008). The importance of knowing the attitudes of individuals towards people who have a disability can be summarized as: contributing to making programs for individuals with disabilities more successful; attempting to make the attitudes of the individuals towards disability more positive; and the education and enlightenment of the public to adjust any incorrect concepts and to try to make the attitudes more positive (Eberhardt & Mayberry, 1995; Golding &

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Rose, 2014; Werner, Stawski, Polakiewicz, & Levav, 2012). Raven & Rubin (1983) have pointed out that attitudes are not inherited but acquired and learned, with the individual acquiring them from the prevailing societal culture through socialisation.

Culture refers to the joint collection of characteristics that is passed between generations and which distinguishes one society from another (Dickson, Aditya, , & Chhokar, 2000; Tindall et al., 2015). Several researchers have tried to determine the influences cultures exert on attitudes (similarities and differences) by assessing their effect(s) on individuals' behaviour (Kagawa-Singer, 2004; El-Keshky & Emam, 2015; Fatimilehin & Nadirshaw, 1994; Florian, 1982; Gaad, 2004; Scior, Kan, McLoughlin, & Sheridan, 2010). Some of these studies have shown that there were more positive attitudes towards people with ID in the developed countries than in the developing ones, other studies tend to find more positive attitudes towards people with ID in western countries than in eastern ones (Florian, 1982). Several studies have identified a tendency to find more positive attitudes towards people with ID in societies characterised by values of individualism rather than in societies characterised by values of collectivism (Bi, 2010; Black, Mrasek, & Ballinger, 2003; Rao, Horton, Tsang, Shi, & Corrigan, 2010).

The existing (mostly Western) literature has found that attitudes to people with ID are affected by the predominant culture, formal education (Schwartz & Armony-Sivan, 2001; Gasteiger-Klicpera, Klicpera, Gebhardt, & Schwab, 2013; Symons, Morley, McGuigan, & Akl, 2014), previous personal contact with people with disabilities (Li & Wang, 2013; Scior, Potts, & Furnham, 2013) and by gender (Scior et al., 2013; Maha, 2013; Panek & Jungers, 2008). The most used assessment tool for these studies has been the Community Living Attitudes Scale for Mental Retardation (CLAS-MR) (Henry, Keys, & Jopp, 1999; Henry,

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Keys, Jopp, & Balcazar, 1996). Originally developed in the United States, the CLAS-MR scales have been validated on the initial US sample for their reliability and validity and have been used by many researchers in several countries including the USA, the UK, Israel, Japan, Pakistan and China. The CLAS-MR scale is widely used and shown to be valid, reliable and relevant. The scale is a questionnaire with 42 items, each in 6-point Likert format ranging from 1= strongly Disagree to 6=strongly Agree. The scale contains four subscales. The 15 item Empowerment subscale items relates to the policies and decisions that affect the lives of people with ID reflect the idea that they should be enabled to make their own opinions. The 7 item Exclusion subscale assesses desire to exclude people with ID from community life. The 6 item Sheltering sub-scale assesses the extent to which the daily lives of people with ID must be supervised by others and/or to protect them from community life's dangers. The 14-item Similarity sub-scale assesses the respondent's view on how similar people with ID are to typically-achieving people in the community. Scores are averaged for each sub-scale. Each sub-scale therefore has a minimum score of 1 and a maximum score of 6. For the Empowerment, Sheltering and Similarity sub-scales, a higher score represents more empowering, more supportive, more similar attitudes respectively, whereas for the Exclusion subscale a higher score indicates a less inclusive attitude.

Table 1 summarises the cross-cultural findings to date. It may be seen that there is considerable heterogeneity between the different countries and the different populations sampled within each country. Of particular interest is the study by Patka, Keys, Henry and McDonald (2013) of attitudes in Pakistan, where it is evident that attitudes were very much less positive than in the other countries sampled.

\*\* Insert Table 1 about here \*\*

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It is also evident from Table 1 that there is a dearth of information about attitudes to people with ID in Arab countries. Several researchers recommend the need for research in this field in developing countries and specifically in the Arab countries (Alborno, Gaad, & Emirates, 2012; Haimour, 2012; Keller, C., & Al-hendawi, 2014). The current study contributes to this literature by measuring and comparing attitudes towards ID in the UK and in Libya.

Libya is a north-African country situated on the southern coast of the Mediterranean Sea bordered by Egypt to the east, the Sudan to the southeast, Chad and Niger to the south Algeria to the west and Tunisia to the north-west. The population of Libya is 6.5 million, with the majority being Sunni Muslims.

Four distinctive aspects of Libyan culture are salient for attitudes to people with ID in Libya. First, Arab cultures value individual honour and family respect extremely highly and consequently any individual stigma is keenly felt at the individual level. Second, Libya is a highly collectivist society - scoring 80 on Hofstadter's collectivism index (Aharoni, 1992; Abubaker, 2008), as opposed to 35 for the more individualistic UK society (Obeidat, Shannak, Masa'deh, & Al-Jarrah, 2012) - the family and group are of great significance and an essential wellspring of an individual's personality. Consequently an individual's stigma strongly affects the extended family group. Third, as a custom-based society, the effects of any stigma are long-lasting, maybe even into future generations. Fourth, Libya is a Muslim society. The Quran makes little explicit mention of disability (Bazna and Hatab, 2005), but as Hasnain, Shaikh, & Shanawani (2008) note "Many Muslims see disability in the context of qadar/kismet, or fate, a cornerstone of Muslim belief. This concept is often expressed as the belief in preordination that what was meant to be will be, and what was not meant to happen does not occur." This tendency may be more marked for a congenital disability, such as some



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cases of ID, rather than to a disability attributable to a physical injury or other non-congenital causes. These four factors highlight the likely discrepancies between attitudes to people with ID in Libya as opposed to Western countries, and further justify the need for research on the issue.

In Libya, the Gaddafi government gave considerable attention to people with a disability: laws were issued, institutions were established to provide care, special committees were formed for each kind of disability and social security laws were issued. Unfortunately, issuing laws without proper mechanisms for implementing them does not guarantee change in individual behaviour (Li & Wang, 2013; Martz, Strohmer, Fitzgerald, Daniel, & Arm, 2009). Benomir (2004) have claimed that, despite the seminars, discussions and conferences organised concerning care for people with a disability together with laws and regulations affirming their rights in society, care for people with ID in Libya is still not sufficient and remains practised in the same manner which prevailed a hundred years ago in developed countries; namely a segregated system merely providing care in separate institutions.

This analysis provides the rationale for assessing the attitudes to people with ID in Libya. Indeed, given the revolution that took place within a year after this survey, it may provide unique data that can no longer be replicated. It is also important to recognise the differences between different categories of people within a country. It is again evident from Table 1 that the attitudes of staff working with people with ID were markedly different from those of the general population. Consequently we determined to investigate the attitudes both of staff working with ID and of students, on the grounds that students, especially psychology students, are the population sector most likely to help shape opinion regarding approaches to people with ID in the future. In fact, studies have also established that a student's discipline

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can affect their attitude towards people with IDs. For example Rasker, ten Klooster, Dannenberg, Taal, & Burger (2008) and Brown et al. (2009) established that the attitudes of the fourth-year students of Occupational Therapy were more positive than those of the first-years of the same specialisation. The attitude of psychology students may have significant influence on the standard and quality of development of the services provided for people with ID which could be related to the fact that those students are expected to work (after graduation) with this sector. Unfortunately, to our knowledge there have been no studies internationally that compare the attitudes of psychology students with those of students from other disciplines.

Consequently, the study was designed to assess attitudes to people with ID in two countries (the UK and Libya), and within each country to assess the attitudes of professional staff working with people with ID and those of students; and to compare the attitudes of Psychology students with those from a different science discipline, namely mathematics.

## **2 Hypotheses**

The above considerations allow us to develop a series of hypotheses regarding the study outcomes. In general, negative attitudes are more likely to be found in collectivistic cultures, as previous research indicates (Rao et al., 2010; Shao, Rupp, Skarlicki, & Jones, 2011). However, based on the availability of the four sub-scales of the CLAS, and the four differential factors noted earlier, it is possible to derive more detailed predictions.

Hypothesis 1: Empowerment. We predict that, overall, Libyan respondents will give significantly lower ratings on the Empowerment sub-scale, as a consequence of a tendency to

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believe that people with ID have congenital difficulties that cannot be alleviated through intervention and empowerment.

Hypothesis 2: Exclusion. We predict that, overall, Libyan respondents will give significantly higher ratings on the Exclusion sub-scale, as a consequence of the implicit wish to segregate people with ID so as to minimise any stigma to the extended family.

Hypothesis 3: Sheltering. We predict that, overall, Libyan respondents will give equivalent ratings on the Sheltering sub-scale, as a consequence of the collectivist culture and the teachings of the Quran.

Hypothesis 4: Similarity. We predict that, overall, Libyan respondents will give significantly lower ratings on the Similarity sub-scale, as a consequence of the greater tendency of people from individualist cultures to tolerate and respect differences from the norm.

A further set of hypotheses was derived for the differences between within-country respondents in terms of their roles.

Hypothesis 5: Roles of respondents. The only study we have found comparing professionals in disability support with other groups was the study mentioned earlier by Patka, Keys, Henry and McDonald (2013) of attitudes in Pakistan. Interestingly, the study found less favourable attitudes on all four sub-scales for the disability workers than the general population. Nonetheless, we predict that the staff will show higher ratings than the students for Similarity (in that they have much greater experience of people with ID); for Sheltering (in that that is their primary role); but a lower rating for Empowerment (which might be seen as a threat to

their day-to-day roles). The situation for Exclusion is less clear-cut, in that it involves elements both of segregation (which we would predict that the staff support) and Sheltering.

Hypothesis 6: Student Discipline in Libya and the UK. Following the evidence from Rasker, ten Klooster, Dannenberg, Taal, & Burger (2008) and Brown et al. (2009) we predict that the Psychology students will in general have more favourable views than the Science students on all four subscales.

### **3 Method**

#### 3.1 Participants

Participants comprised University students and professional staff at schools for children with ID, with the students being recruited from Psychology and Mathematics departments. This allowed an explicit examination of role, and an implicit examination of familiarity with ID, together with some analysis of the effects of different types of formal education. In Libya questionnaires were distributed to staff at a school for children with ID and at two Universities (Sebha and Tripoli Universities). In the UK, participants were recruited from a school with a specialist facility for children with ID, together with university students. Details of the numbers initially approached and those providing useable data are provided in the Procedure section. No remuneration to participants was given.

#### 3.2 Materials

Participants completed two questionnaires. The first was a demographic information sheet used to obtain variables such as country, gender, subject of study and participant's role. The second part was the Community Living Attitudes Scale (CLAS-MR) described earlier.

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The CLAS-MR uses some language that is now obsolete (such as Mental Retardation rather than Intellectual Disability), and some terminology that is uniquely American. Consequently small adjustments were made to develop a UK version. There was no Arabic version available and therefore an appropriate translation was constructed, using the recommended methodology (Bracken & Barona, 1991). This involved the following stages:

- (i) two bilingual interpreters who were familiar with the basic concepts translated the scale from English into Arabic (the language of Libyan people);
- (ii) this initial Arabic version was translated back to English and the two English versions were reviewed by a native English speaker;
- (iii) modifications were made until the back-translation was considered equivalent to the original;
- (iv) the two scales were then checked by a bilingual committee included Arabic language teachers and staff members at disability and psychology schools at the University of Sebha;
- (v) in order to eliminate vagueness in the words and phrases used in the scale and to assure suitable responses, CLAS-MR Scales were further tested on volunteer university students and appropriate adjustments made;
- (vi) A final trial was conducted on a small set of volunteers to confirm that there were no remaining problems.

### 3.3 Design

The study used a quantitative design, where the independent variables were Country (Libya vs the UK), Gender (Male vs Female), and Role (Staff vs Student), and the dependent variables were the scores on the CLAS-MR sub-scales, namely Empowerment, Exclusion,

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Sheltering and Similarity. Each participant completed the full questionnaire, together with further demographic information, as outlined below.

### 3.4 Procedure

The full procedure was approved by the Ethics Committee of the University of Sheffield, Department of Psychology with additional permissions granted by the University of Sebha and from the Head of the appropriate Libyan school.

For the Libyan students, paper copies of the questionnaire were distributed at the end of lectures and completed straight away or returned to the department office later. The school administrator in Libya distributed the questionnaires to staff and collected them in. For the Libyan students, in total 300 copies of the scales were distributed, with 203 questionnaires returned (a 68% response rate) of which 178 were accurately completed. For the Libyan staff, in total 100 questionnaires were distributed of which 65 were returned (a 65% response rate) with 60 useable.

For the UK university sample, an invitation to participate via the online questionnaire was emailed to all students enrolled in the first year mathematics course and the first year psychology course. In total, 104 students completed the questionnaire. The questionnaires were distributed and returned by email. Following discussion and approval from the heads of the UK schools, the staff coordinator at the two schools were approached by telephone and questionnaires were sent and returned by post by those who agreed to take part. This resulted in the return of 25 from the 32 full-time professional staff involved (a 78% response rate).

The CLAS-MR takes about 25 minutes to complete, whether on paper or online.

#### **4 Results**

Data were screened for normality and for outliers. There was no significant skewness for any of the four CLAS-MR subscales. The internal consistency for the CLAS-MR for Libya and the UK was acceptable to good with the overall Cronbach alpha coefficient 0.7 for Libya and 0.7 for the UK. The means and standard deviations of the ratings are provided in Table 2.

\*\* Insert Table 2 about here \*\*

Four separate analyses of variance were then undertaken, one for each of the CLAS-MR sub-classes as dependent variables. There were three Independent Variables: Country (Libya vs UK), Gender (M/F) and Role (Student / Staff). Preliminary assumption testing was conducted to check for normality, linearity homogeneity of variances, homogeneity of regression slopes, and reliable measurement of the covariate. Significance values were taken as  $p \leq .0125$  to provide a Bonferroni correction for the multiple tests.

For Empowerment there was a significant main effect of Country,  $F(1,359) = 108.95$ ,  $p < .0001$ ,  $\eta^2 = 0.23$ , with higher scores for the UK sample than the Libyan sample. There was not a significant main effect of Role or Gender and no significant interaction between Country and Role or Country and Gender.

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For Exclusion there was a significant main effect of Country,  $F(1,359) = 125.031, p < .001, \eta^2 = 0.26$ , with higher scores for the Libyan sample than the UK sample. There was no significant main effect of Role or Gender. There was a significant interaction between Country and Role,  $F(1,359) = 8.70, p = .005, \eta^2 = 0.024$ , with the UK staff giving lower ratings than the other three groups, but no significant interaction between Country and Gender.

For Sheltering there was no significant main effect of Country when the Bonferroni adjusted alpha was used,  $F(1,359) = 4.66, p < .05, \eta^2 = 0.012$ . There was a significant main effect for Role,  $F(1,359) = 12.90, p < .001, \eta^2 = 0.035$ , and a significant main effect of Gender,  $F(1,359) = 9.08, p = .005, \eta^2 = 0.025$ . There was a significant interaction between Country and Gender,  $F(1,359) = 6.99, p = .01, \eta^2 = 0.019$ , with the Libyan males giving higher ratings than the Libyan females, and the UK males and females in between. There was also a significant interaction between Country and Role,  $F(1,359) = 8.797, p < .005, \eta^2 = 0.024$ , with the Libyan students giving lower ratings than the Libyan staff, but no difference between the UK staff and students.

For Similarity there was a significant main effect of Country,  $F(1,359) = 84.496, p < .0001, \eta^2 = 0.191$ , with higher scores for the UK sample than the Libyan sample. There was not a significant main effect of Role or of Gender. There was a significant interaction between Country and Role,  $F(1,359) = 7.07, p < .01, \eta^2 = 0.019$ , with the UK students giving higher ratings than the UK staff, but vice versa for the Libyan students and staff. There was no significant interaction between Country and Gender.

\*\* Insert Table 3 around here \*\*



Finally, in order to explore the effect of academic discipline (Psychology vs Mathematics), the staff data were deleted from the database and the descriptive statistics determined (see Table 3). A series of analyses of variance (one for each CLAS subscale) was then undertaken, with Country (UK vs Libya), Gender (M vs F) and Academic Discipline (Psychology vs Mathematics) as the independent variables. Only results involving Academic Discipline will be reported here, to avoid repetition of the previous analyses. In fact, there were no significant effects of Academic Discipline on any of the four sub-scales. The only significant interaction of Academic Discipline with other variables was found for the Sheltering sub-scale: Mathematics students in Libya gave lower ratings than the Psychology students, whereas it was vice versa for the UK.

### **5 Discussion**

In terms of main effects, we established that there were clear, significant differences in attitude to people with ID between the Libyan and the British participants. Hypotheses 1 to 4 were supported. The British participants gave significantly higher ratings towards people with ID on Empowerment (Hypothesis 1), significantly lower ratings for Exclusion (Hypothesis 2), and significantly higher ratings for Similarity (Hypothesis 4). They also gave higher, but not significantly higher, ratings for Sheltering (Hypothesis 3). This supports the general hypothesis that people from a collectivist culture (the Libyan sample) hold less favourable attitudes towards people with ID than those from an individualist culture (the UK sample), although there are of course alternative explanations.

In terms of Role (Hypothesis 5), we predicted that the staff would show higher ratings than the students for Similarity (in that they have much greater experience of people with ID); for

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Sheltering (in that that is their primary role); and a lower rating for Empowerment (which might be seen as a threat to their day-to-day roles). The situation for Exclusion was harder to predict, in that it involves elements both of segregation (which we would predict that the staff support) and Sheltering. In fact, there were no significant main effects of Role for Empowerment or Similarity (contrary to the prediction) or for Exclusion, but there was a significant main effect, as predicted, for Sheltering. This was attributable entirely to the Libyan sample, in that there was no difference for the UK sample. This difference led to a significant interaction between Country and Role for Sheltering. There was also a significant interaction between Country and Role for Exclusion, for which the Libyan students gave lower (more favourable) ratings than the Libyan staff whereas the UK students gave higher ratings than the UK staff. The only other significant interaction between Country and Role was for Similarity, for which the Libyan students gave lower ratings than the Libyan staff (as predicted), whereas the UK students gave higher ratings than the UK staff (contrary to the prediction).

In terms of Academic Discipline, Hypothesis 6 was not supported, in that no significant main effects for the Psychology students versus the Science students were observed. The only significant interaction between Academic Discipline and Country was for Sheltering.

In addition, considering the effect of Gender, there were no significant main effects for Empowerment, Exclusion or Similarity, but there was a significant main effect for Sheltering, with the males giving the higher ratings. This difference was attributable to the Libyan sample only, as reflected by the significant interaction between Country and Gender for Sheltering. The higher ratings for the Libyan males than females are unexpected. We

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speculate that this may be attributable to an obligation on the males to advocate support for all family members, with the obligation on the females to actually provide the support.

Comparison of the standard deviations of the scores with those reported in other studies (see also Table 1) indicates that the results reported here are comparable with those reported by Henry, Keys, Balcazar, & Jopp, (2008) in the original normative samples, suggesting that the sensitivity of the instrument is comparable. In terms of comparison with other studies, there is a close correspondence between the Libyan participants' scores and those reported by Patka, Keys, Henry, & McDonald (2013) for Pakistan community members and staff at a school for children with ID, with the means per subscale substantially the same. The UK participants had somewhat lower means than those reported recently by Sheridan & Scior (2013), with less favourable scores on Empowerment, Exclusion, and Similarity.

The CLAS-MR has been used in several countries to explore attitudes towards ID, but this is its first application in an Arab culture. Overall, the results appear to be largely consistent with those reported already in the literature, with the Libyan data corresponding reasonably well to those established in Pakistan, a country with the same religion and with similar family values. The UK data are largely similar to other published western studies, but they appear somewhat less favourable than in other recent studies.

Gender effects on attitudes towards ID have been found in several previous studies. However, there were no significant main effects of Gender and any sub-scale, and the only significant interaction found here between Country and Gender was that the Libyan males gave higher ratings for Sheltering than the Libyan females, with no difference for the UK males and females.

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In term of Role, several previous studies have measured the influence of role, but none has compared between staff at special school and university students. We found significant Country by Role interactions for three of the CLAS-MR subscales. Libyan staff had higher scores on Exclusion than the Libyan students whereas the UK students had higher scores than the UK staff. For Sheltering and Similarity the Libyan students had lower scores than the Libyan staff whereas there were no differences between staff and students in the UK.

It is important to acknowledge the limitations of the study. One limitation is that most of the participants were female. Gender is a potentially important factor, in that in Libya the majority of the leaders for developing policy on people with ID are male, whereas the majority of staff working with people with ID are female. Fortunately, given the lack of gender effects, there is reason to believe that this not a serious limitation of the generality of the findings. A further issue related to the use of a self-report measure developed in the USA which may reflect values in the USA and miss the cultural, political and religious nuances of Libyan society. Our efforts to develop the Libyan scale appropriately will have eliminated any gross problems, but it must be acknowledged that any such instrument may miss some important issues. The internal consistency of the scale was satisfactory for the Libyan population, but other aspects of reliability and validity were not tested. However the measure has been found to have satisfactory psychometric properties in studies carried out in Western (USA, UK, Australia) and Non-western countries (Japan and Pakistan). Finally, participants were largely drawn from universities and professionals and so reflect the attitudes of a more educated class in both countries. Studies in the United States, Hong Kong and the UK have found more favourable attitudes to be associated with higher levels of education. It may be that different results may have been found with a community population. However the results

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of the Libyan sample are similar to a community sample of Sunni Muslims living in Pakistan (Patka, Keys, Henry, & McDonald, 2013).

It is also important to note that any study is bounded not only by country but also by time. This study took place in 2011 in what turned out to be the last year in power of the long-established Gaddafi regime, and hence the last year of relative stability in Libya. It is likely that a further study in Libya would lead to different scores on attitudes to people with ID. In many ways this is a strength of the study, because it provides a 'steady state' assessment of the attitudes within a stable, collectivist, Muslim, Arab culture unaffected by the trauma and insecurity that are the inevitable consequences of a major, violent, upheaval in a society.

Finally, it is important to acknowledge the intrinsic variability of the data. As one might expect from such a wide range of participants, there was considerable variability within every category we investigated. Inevitably, this between-participant variability will limit the effect sizes for our independent variables (indicated here by the  $\eta^2$  values in the ANOVAs), but it should be stressed that with  $\eta^2$  values over 0.20 for several main effects, these do reflect clear differences.

Despite these issues, which limit the generality of conclusions that may be drawn, the research presented here provides a fruitful basis for further research. The CLAS-MR Arabic provides for the first time an Arabic version of the scale, thereby allowing further researchers to investigate attitudes in the Arabic-speaking countries. The findings on gender are perhaps particularly interesting in that, in the main, there were no significant main effects of gender in either country, though there were interactions as discussed above. The comparison of attitudes of specialist teachers of children with ID with those of students is also an original

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feature, suggesting that the students may actually have more favourable attitudes on many dimensions than staff, despite the greater familiarity of the staff with individuals with ID. Perhaps most important, the study provides quantitative baseline data on attitudes to people with ID in Libya (and the UK) in late 2010. This allows future researchers to evaluate the effects of future interventions – or future events – on the attitudes pertaining at the end of the Gadhafi era.

In conclusion, this study is the first quantitative assessment of attitudes towards people with ID in Libya, and the first cross-cultural comparison between Libya and the UK. The study also aimed to measure the interactions of gender and demographic variables. The major issue of interest was whether there is a difference in attitude to people with ID between the western respondents in the UK and the respondents in Libya given their collectivist, Muslim, Arab culture. As predicted, the study established substantial main effects for attitudes to ID on three subscales of the CLAS-MR, with the UK sample providing more favourable ratings on Empowerment, Exclusion and Similarity, but not on Sheltering. In general, gender effects were weak, but there were interactions between Country and Role, confirming the importance of these variables for future research. We hope that this study may promote future studies in Arab societies and that these findings and techniques will provide a basis for further research that will, in due course, develop interventions that further improve attitudes to individuals with ID throughout the world.

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### **Acknowledgments**

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Table 1: Summary of findings from previous studies using the CLAS-MR subscales

Study	Sample	n	Empowerment Mean (SD)	Exclusion Mean (SD)	Sheltering Mean (SD)	Similarity Mean (SD)
USA (Henry, Keys, Balcazar, et al., 1996)	Students and community members	387	3.91 (0.78)	1.87 (0.66)	3.26 (0.76)	4.90 (0.65)
USA (Henry, Keys, Jopp, et al., 1996)	Disability staff	340	4.02 (0.79)	1.77 (0.63)	3.26 (0.79)	4.64 (0.64)
Israel (Schwarz & Armony-Sivan, 2002)	Students	149	3.73 (0.66)	2.41 (0.72)	3.96 (0.66)	4.48 (0.61)
Japan (Horner-Johnson et al., 2002)	Students	275	3.41 (0.47)	1.96 (0.62)	3.17 (0.49)	4.00 (0.53)
Hong Kong (Scior et al., 2010)	General population	149	4.06 (0.59)	2.24 (0.67)	3.63 (0.73)	4.56 (0.58)
Pakistan (Patka, Keys, Henry and McDonald, 2013)	Community members	262	3.01 (1.56)	3.53 (1.18)	3.17 (1.30)	4.38 (1.21)

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Pakistan (Patka, Keys, Henry and McDonald, 2013)	Disability Workers	190	3.94 (1.10)	4.20 (1.16)	2.54 (1.34)	3.00 (1.23)
UK (Sheridan & Scior, 2013)	White British sixth formers	382	4.31 (0.62)	1.72 (0.75)	3.10 (0.70)	5.08 (0.64)
UK (Sheridan & Scior, 2013)	British South Asian Sixth formers	355	4.20 (0.55)	1.98 (0.89)	3.27 (0.72)	4.85 (0.75)

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Table 2 Community Living Attitudes Scale (CLAS) Subscale Means and Standard Deviations by Demographic Variable

			CLAS-MR Subscale			
			Empowerment	Exclusion	Sheltering	Similarity
		n	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
<b>Country</b>						
	Libya	238	2.97 (0.50)	3.57 (0.79)	2.64 (0.91)	3.31 (5.8)
	UK	129	3.87 (0.44)	2.29 (0.53)	3.26 (0.53)	4.40 (0.57)
<b>Country by Gender</b>						
Libya	male	72	2.87 (0.51)	3.52 (0.81)	2.97 (0.93)	3.30 (0.59)
	female	166	3.01 (0.49)	3.60 (0.79)	2.49 (0.86)	3.31 (0.58)
UK	male	28	3.68 (0.45)	2.60 (0.57)	3.21 (0.48)	4.44 (0.59)
	female	101	3.92 (0.42)	2.22 (0.50)	3.27 (0.54)	4.39 (0.57)
<b>Country by Role</b>						
Libya	Student	178	2.94 (0.50)	3.51 (0.84)	2.48 (0.88)	3.23 (0.58)
	Staff	60	3.05 (0.49)	3.75 (0.61)	3.10 (0.84)	3.54 (0.51)
UK	Student	104	3.86 (0.40)	2.38 (0.53)	3.26 (0.54)	4.45 (0.50)
	Staff	25	3.92 (0.57)	1.93 (0.35)	3.25 (0.49)	4.19 (0.79)

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Table 3: Mean and standard Deviation for Country by Academic Discipline

		CLAS-MR subscales				
			Empowerment	Exclusion	Sheltering	Similarity
		n	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
<b>Country by Discipline</b>						
Libya	Psychology	92	2.95 (0.53)	3.54 (0.83)	2.66 (0.93)	3.24 (0.58)
	Mathematics	86	2.92 (0.48)	3.48 (0.86)	2.29 (0.77)	3.23 (0.59)
UK	Psychology	70	3.92 (0.41)	2.24 (0.49)	3.15 (0.48)	4.50 (0.51)
	Mathematics	34	3.72 (0.35)	2.67 (0.50)	3.50 (0.58)	4.36 (0.46)