

Attitudes of medical clerks toward persons with intellectual disabilities

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Abstract

Objective To assess the attitudes of upper-year undergraduate medical students (ie, clerks) toward the philosophy of community inclusion of persons with intellectual disabilities (ID) according to demographic, personal contact, and training variables.

Design Cross-sectional self-administered survey.

Setting Clerkship rotations at Queen's University in Kingston, Ont, and the University of Toronto in Ontario in 2006.

Participants A total of 258 clerks.

Main outcome measures Scores on the Community Living Attitudes Scale—Short Form.

Results There were no differences in the Community Living Attitudes Scale—Short Form subscale scores across categories of demographic characteristics, personal contact, or having received didactic training about ID. Clerks who had seen patients with ID during their medical school training had higher mean sheltering subscale scores than those who had not (3.27 vs 3.07, $P=.02$). Additional analysis revealed that 88.5% of clerks who had seen patients with ID reported seeing 5 or fewer such patients, and that those who rated the quality of their supervision more positively had higher mean scores on the empowerment subscale and lower mean scores on the sheltering subscale.

Conclusion Although specific training has the potential to promote more socially progressive attitudes regarding persons with ID, lower-quality supervision is associated with higher endorsement of items expressing the need to shelter individuals with ID from harm and lower endorsement of items promoting empowerment.

EDITOR'S KEY POINTS

- Understanding medical students' attitudes toward persons with intellectual disabilities (ID) during their training can help inform curriculum needs.
- Medical students have very limited clinical contact with persons with ID.
- Clerks who reported seeing patients with ID also reported stronger attitudes toward sheltering (ie, the belief that persons with ID need to be supervised in daily activities and protected, so they will not be harmed in the community) this population.
- Better-quality supervision was associated with favourable attitudes toward empowerment (ie, persons with ID should be enabled and allowed to make decisions that affect their lives) among clerks who had seen patients with ID.

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Attitude des stagiaires en médecine à l'égard des personnes avec déficience intellectuelle

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Résumé

Objectif Déterminer l'attitude des étudiants en médecine en fin de premier cycle qui effectuent des stages cliniques (les stagiaires) à l'égard de la théorie de l'intégration communautaire des personnes avec déficience intellectuelle (DI), en fonction des facteurs démographiques, des contacts personnels et du niveau de formation des étudiants.

Type d'étude Enquête transversale auto-administrée.

Contexte Les stages cliniques à l'Université Queen's de Kingston et à l'Université de Toronto, en Ontario, en 2006.

Participants Un total de 258 stagiaires.

Principal paramètre utilisé La forme abrégée de la Community Living Attitude Scale (CLAS).

Résultats Il n'y avait pas de différence attribuable aux caractéristiques démographiques, aux contacts personnels ou au fait d'avoir eu une formation en DI pour ce qui est des scores obtenus à la sous-échelle de la CLAS. Les stagiaires qui avaient vu des patients avec DI durant leur formation médicale avaient des scores moyens à la sous-échelle «protection» plus élevés que ceux qui n'en avaient pas vus (3,27 vs 3,07, $P = ,02$). Une analyse additionnelle a révélé que 88,5% des stagiaires qui avaient vu des patients souffrant de DI disaient en avoir vu 5 ou moins, et que ceux qui croyaient avoir eu une bonne supervision avaient des scores moyens plus élevés à la sous-échelle «responsabilisation» et des scores moyens plus bas à la sous-échelle «protection».

Conclusion Même si une formation spécifique est susceptible de favoriser une attitude socialement plus progressiste envers les personnes souffrant de DI, une supervision de moindre qualité est associée à une plus forte adhésion aux items suggérant la nécessité de protéger les personnes avec DI et d'une moindre adhésion aux items favorisant leur responsabilisation.

POINTS DE REPÈRE DU RÉDACTEUR

- Le fait de comprendre l'attitude des étudiants en médecine à l'égard des personnes qui souffrent de déficience intellectuelle (DI) durant leur formation peut aider à modifier le curriculum.
- Les étudiants en médecine ont très peu de contacts cliniques avec des personnes souffrant de DI.
- Les stagiaires qui disaient avoir vu des patients avec DI démontraient aussi des attitudes plus favorables à protéger ces personnes (p. ex. les personnes avec DI ont besoin d'être supervisées dans leurs activités quotidiennes pour qu'il ne leur arrive rien de mal dans la communauté).
- Chez les stagiaires qui avaient vu des patients avec DI, une supervision de meilleure qualité était associée à une attitude favorable à la responsabilisation (p. ex. permettre aux personnes souffrant de DI de prendre des décisions les concernant).

Cet article a fait l'objet d'une révision par des pairs.
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There is an urgent need to improve primary health care for persons with intellectual disabilities (ID). These individuals present impairments with onset before 18 years of age, characterized by sub-average general intellectual functioning (IQ <70) that is accompanied by considerable limitations in adaptive functioning in at least 2 of the following areas: communication, self-care, home living, social or interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and safety (*Diagnostic and Statistical Manual of Mental Disorders*, 4th ed). As a group, persons with ID have a greater number and complexity of health care needs, as well as increased mortality compared with the general population¹; yet they access health care to a much lesser extent.² Evidence shows that primary health care is not meeting their needs.^{3,4}

In a 2006 editorial in *Canadian Family Physician*, Dr Nicholas Lennox asserts that the lack of attention to the health needs of individuals with ID is due to “the negative attitude of medical practitioners, toward [such] patients.”⁵ He further states that “what our colleagues fail to recognize is the humanity of [persons with ID].”⁵ While insufficient knowledge and skills in caring for persons with ID among physicians are recognized as barriers to health and high-quality health care,⁶⁻⁸ when combined with negative attitudes, these produce a lack of engagement from health care providers.⁹ This lack of engagement, in turn, further influences the quality of health care available to this population.⁹

Research on the attitudes of health care providers toward persons with ID has evolved from a focus on treatment decisions^{10,11} and functional prognosis¹² to a focus on views toward the philosophy of community inclusion. *Community inclusion* means that persons with ID should be able to live in the same neighbourhoods, work in the same places, and study in the same schools as persons without ID.¹³ For community inclusion to be realized, persons with ID should not be excluded or unduly sheltered; they should be given the opportunity to make choices, and their similarity to others, rather than the differences presented by their disability should be emphasized. These values drive policy and service delivery and are expected by individuals with ID and their families. It is believed that practitioners with attitudes more congruent with these values are better placed to offer care and services to meet the needs of persons with ID in an inclusive environment.¹⁴ Such care and services would be characterized by interactions and recommended interventions that reflect the value of all individuals, as well as pay particular attention to enhancing independence and choice for this vulnerable group. Specifically, this would include taking time to meet the communication needs of patients with ID,^{15,16} always obtaining free and informed consent, and

including persons with ID in decision making when they do not have the capacity to consent.¹⁶

Medical schools have a responsibility not only to impart medical knowledge and skills to trainees, but also to prepare them to be effective practitioners in the social and cultural context in which they will work. The implementation of CanMEDS–family medicine roles in medical school evaluation has allowed for clinical assessment beyond immediate medical care to required competencies within the wider health care system.¹⁵ Understanding medical students’ attitudes toward persons with ID and how these are associated with their exposure to the field during their training can help inform curriculum. To date, no studies of Canadian undergraduate medical students’ attitudes toward the philosophy of community inclusion have been reported in the professional literature.

However, research in other groups has identified variables that are associated with favourable attitudes toward the community inclusion of persons with ID, namely younger age,¹⁷ higher levels of education,^{17,18} and personal contact variables such as having a friend or relative with ID¹⁹ or recent interaction.²⁰ Some studies have found more prosocial attitudes among women than men^{14,18}; however, there are inconsistencies across studies.^{17,21}

To learn more about the attitudes of Canadian undergraduate medical students and inform future curricular efforts, we elected to survey a large cohort of upper-year students on clinical rotations (ie, clerks). We hypothesized that sex, age, personal contact, and training would be associated with attitudes toward community inclusion of patients with ID.

METHODS

Participants

Clerks at Queen’s University (Queen’s) and the University of Toronto (U of T) participated in this study. Participation in this study was voluntary and anonymous. The study protocol was approved by the research ethics boards of both Queen’s and U of T.

Data collection

Students were given a cover letter explaining the purpose of the survey. To ensure a clear understanding of the population of interest, the following text appeared prominently on the cover letter:

This questionnaire is specifically about intellectual disability. Other terms which are sometimes used to describe this group include “people with mental retardation” or “people with a developmental disability.” While “developmental disability” is used by

the Ontario government for administrative purposes, the current medical diagnostic term most commonly used for this group is "Mental Retardation." Many people who are diagnosed with mental retardation find the label to be derogatory, and so professionals often use the other terms or occasionally no labels at all. Before proceeding please read the following definition.

At this point the *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed, criteria given in the introduction of this paper were provided.

Participants completed a written questionnaire, adapted from Ouellette-Kuntz et al,¹⁴ which took approximately 15 minutes to complete. The questionnaire included questions on demographic characteristics, personal contact with persons with ID, and medical school training on ID up to that point. Specifically, the clerks were asked the following questions: To date, have you seen any patients with ID in your medical school *clinical* training? To date, have you received specific *didactic* teaching on ID during your undergraduate medical school training? The Community Living Attitudes Scale—Short Form (CLAS)²² was used to quantify attitudes. The CLAS has been shown to have adequate internal consistency, retest reliability, and construct validity.²³ The CLAS consists of 17 questions that are divided into 4 discrete subscales: empowerment (ie, persons with ID should be enabled and allowed to make decisions that affect their lives), exclusion (ie, persons with ID should not live or be supported within the community), sheltering (ie, persons with ID need to be supervised in daily activities and protected, so they will not be harmed in the community), and similarity (ie, persons with ID have the same rights, needs, desires, and potential as anyone else).²³ Respondents scored each statement using a 6-point Likert-like scale (6=strong agreement; 1=strong disagreement). The subscale scores were calculated as the average of the scores to the statements that constituted them. All data were collected during activities related to the clerks' psychiatric rotation but before the specific training components that addressed ID. Thus, although some clerks might have encountered patients with ID during any of their previous rotations, their encounters were most likely without specific training pertaining to ID or supervision from clinicians specializing in ID.

Data analysis

All statistics were calculated with SPSS, version 17.0 for Windows. Two-tailed *P* values of less than .05 were considered to indicate statistical significance. Descriptive statistics were calculated to describe the sample. Mean CLAS score results were calculated for individual items and for subscales for the entire sample. Mean CLAS subscale results were then compared using *t* tests for the following variables: sex, age, personal contact (having

a family member with ID or knowing someone with ID who is outside the family), and a self-report of either clinical or didactic medical school training in ID. If more than 10% of the items on a respondent's CLAS subscale were left blank, the measure was considered unscorable and the survey was removed from the analysis. The items used to form the CLAS subscale scores were assessed for internal consistency by calculating the Cronbach α .

RESULTS

Response rate and description of sample

A total of 346 clerks enrolled for a psychiatry rotation between November 7, 2005, and December 31, 2006. Of these, 275 clerks submitted surveys (79.5%). Seventeen respondents (6.2%) submitted incomplete responses to CLAS items and were therefore excluded from the analysis. Of the included surveys, 68 (26.4%) were from Queen's and 190 (73.6%) were from U of T. The characteristics of these 258 participants, along with descriptions of their personal contact with persons with ID and training in ID, are presented in **Table 1**.

Table 1. Characteristics of respondents

CHARACTERISTICS	N (%)
Sex, N = 253	
• Male	128 (50.6)
• Female	125 (49.4)
Age, N = 252	
• 20–29 y	213 (84.5)
• ≥ 30 y	39 (15.5)
Respondent has (or had) a close family member with ID, N = 254	
• Yes	20 (7.9)
Respondent knows someone personally with ID other than a family member, N = 254	
• Yes	128 (50.4)
Respondent reports having seen patients with ID during clinical training, N = 258	
• Yes	91 (35.3)
Respondent reports having received didactic training in ID during medical school, N = 258	
• Yes	111 (43.0)

ID=intellectual disabilities.

The CLAS scores

Table 2 presents the scores to the individual items and the subscales of the CLAS for the sample as a whole. The internal consistency (Cronbach α) of the items used to form the subscales ranged from 0.50 to 0.84.

The comparison of CLAS subscale scores yielded no significant differences for the following variables: sex,

age group, having a family member with ID, having known a person with ID who is not a family member, or self-report of having received didactic teaching on ID in medical school. However, there was a significant difference found among the 91 respondents who reported seeing patients with ID during medical training.

Table 2. Respondents' CLAS subscale* and subscale item scores: N=258.

SUBSCALES AND SUBSCALE ITEMS	MEAN (SD)
Empowerment subscale	4.63 (0.71)
1. People with ID should not be allowed to marry and have children [†]	5.22 (1.14)
2. A person would be foolish to marry a person with ID [†]	5.20 (1.07)
3. People with ID can plan meetings and conferences without assistance from others	4.19 (1.05)
4. People with ID can be trusted to handle money responsibly	4.29 (1.03)
5. The opinion of a person with ID should carry more weight than those of family members and professionals in decisions affecting that person	4.25 (1.02)
Exclusion subscale	1.78 (0.78)
7. Increased spending on programs for people with ID is a waste of tax dollars	1.93 (0.96)
8. Homes and services for people with ID downgrade the neighbourhoods they are in	1.74 (0.96)
9. People with ID are a burden to society	1.86 (1.08)
10. Homes and services for people with ID should be kept out of residential neighbourhoods	1.57 (0.90)
Sheltering subscale	3.14 (0.67)
6. Sheltered workshops for people with ID are essential	4.24 (0.91)
11. People with ID need someone to plan their activities for them	2.86 (1.07)
16. People with ID should live in sheltered facilities because of the danger of life in the community	2.22 (1.02)
17. People with ID usually should be in group homes or other facilities where they can have the help and support of staff	3.24 (1.19)
Similarity subscale	5.33 (0.67)
12. People with ID do not need to make choices about the things they will do each day [†]	5.10 (0.92)
13. People with ID can be productive members of society	5.31 (0.77)
14. People with ID have goals for their lives like other people	5.38 (0.79)
15. People with ID can have close personal relationships just like everyone else	5.51 (0.75)

CLAS—Community Living Attitudes Scale—Short Form, ID—intellectual disabilities, SD—standard deviation.
 *Subscales were scored by taking the mean of the responses to the subscale items, resulting in a range of scores from 1 to 6.
[†]Items were reverse-scored to reflect their scale loadings. Items were scored from 1 (strongly agree) to 6 (strongly disagree).

These respondents had a mean (SD) sheltering score of 3.27 (0.69), as opposed to the mean (SD) score of 3.07 (0.64) for those respondents who did not report seeing patients with ID (*t* value=2.39; *P*=.02; *df*=256).

Because respondents who reported having seen patients with ID reported stronger attitudes toward sheltering this population, a post hoc analysis of the clerk's reported training experiences was conducted. Clerks reported having seen up to 25 patients with ID during their medical school training (mean number of patients with ID among those who saw them = 3.7). Note that the distribution is highly skewed, with 88.5% of those who had seen patients with ID having seen 5 or fewer such patients. A total of 53 respondents (20.5% of total sample) reported having seen 1 to 25 patients with a dual diagnosis (ID and mental health problem). Again, the distribution was highly skewed, with the mean number of patients being 2.9 and all but 3 clerks (94.3%) having seen 5 or fewer patients with a dual diagnosis. Despite respondents reporting having seen small numbers of patients with ID, many reported having seen them in more than 1 setting. **Table 3** lists the hospital and community settings in which clerks reported seeing patients with ID.

Table 3. Settings where medical clerks saw patients with ID: N=91.

SETTING	N (%)*
Location	
• Hospital inpatient	42 (46.2)
• Hospital outpatient	9 (9.9)
• Community agency	7 (7.7)
• Institution	5 (5.5)
• Group home	4 (4.4)
Rotation	
• General practice	38 (41.8)
• Pediatrics	21 (23.1)

ID—intellectual disabilities.
 *Total is greater than 100%, as many medical clerks reported having seen patients in multiple settings.

Clerks who had seen patients with ID were asked to rate the quality of their supervision using a 5-point scale (excellent, very good, good, fair, and poor). These respondents were dichotomized into those responding "excellent" or "very good" (38 respondents) and those responding "good," "fair," or "poor" (49 respondents). The CLAS subscale mean scores were compared using these categories, in which it was found that respondents rating the quality of supervision as very good or excellent had statistically higher mean empowerment scores (4.80 vs 4.49; *t* value=2.25; *P*=.03, *df*=85) and lower mean sheltering scores (3.11 vs 3.39; *t* value=-2.02; *P*=.05; *df*=85).

DISCUSSION

This study is the first to describe the attitudes of a sample of Canadian upper-year medical students toward community inclusion philosophy in relation to persons with ID. Contrary to previous studies,^{14,24} the mean CLAS scores of this sample did not differ by sex or age group. In the case of age group, this lack of difference might relate to the minimal difference in ages of respondents across the 2 groupings. This study also failed to identify differences across typical personal contact variables (ie, family member or a personal relation). However, having seen persons with ID during clinical training was associated with higher scores on the sheltering subscale. As respondents who had seen patients with ID would have likely seen them at a time when they were in need of health care and thus functioning less optimally, this could have led them to believe that increased sheltering (ie, working and living in protective or supervised environments) was necessary for persons with ID. The finding that quality of clinical supervision is associated with attitudes of lower sheltering and higher empowerment toward patients with ID suggests that the example of mentors (eg, interest, engagement, and interaction with persons with ID, clinical and case planning for patients with ID) might be particularly important.

The reasons for the association between seeing patients with ID and increased scores for sheltering, as well the association between “good” supervision and more prosocial attitudes, could not be examined through this survey. However, these findings speak to the need for medical schools to better account for the nature of the contact and supervision related to ID as a first step toward understanding what is going on. As well, curricula should include well-defined goals and objectives pertaining to attitudes, as well as knowledge and skills, and ensure that content and teaching are driven by these. For example, Symon et al²⁵ outline the following objectives for students’ attitudes:

- looking beyond the disability and seeing the individual;
- respecting and appreciating the rights and wishes of people with disabilities;
- being open to examine one’s own attitudes about disability; and
- respecting caregivers and families input and needs.

Interestingly, attitudes in this sample were slightly more liberal than what was reported in a previous study with a cohort of psychiatry residents: the clerks had a higher mean empowerment subscale score (4.64 vs 4.32; t value=3.23; P <.01) and a lower mean sheltering subscale score (3.14 vs 3.63; t value=4.58; P <.001).¹⁴ One reason for the difference might be that the psychiatry residents came from a birth cohort approximately 10 years older than the clerks (the residents being

slightly older at the time of the study and the data collection having been 5 years earlier). An additional factor might have been the high proportion of psychiatry residents (86%) who had clinical experience with persons with dual diagnosis. Like the clerks who had seen patients with ID during their training, interactions with persons with ID seeking psychiatric care might have led the residents to believe that all persons with ID need to be sheltered for their own protection.

Limitations

The cross-sectional design that was used did not allow for an examination of causality regarding the association between training and attitudes. Students’ reports about the training they received, although asked simply, might be unreliable and potentially biased; recall of training might be differential for students who hold stronger views. Surveys of attitudes are also prone to social desirability bias, which could explain the relatively high prosocial scores obtained. Furthermore, the CLAS is an instrument developed in the 1990s when institutions for persons with ID were still common and community living options were being developed. The high scores obtained might reflect a shift in societal attitudes, which might have contributed to a lack of discriminatory ability.

Only 2 schools were involved in the survey, which limits the generalizability of the findings. Differences between the 2 schools were not explored owing to variations in the age distribution across schools and the small sample size. The lack of statistically significant findings might be related to the lack of sensitivity of the CLAS and the small sample size.

Conclusion

These results serve as a frame of reference for further comparison among medical students and other similar populations. Clinical experience with persons with ID tends to increase sheltering attitudes. Because sheltering is considered a barrier to community inclusion, this finding suggests that the ways clinical experiences are structured and clinical supervision is provided are not optimal for producing attitudes supportive of community inclusion values. Medical educators should therefore seek ways to adapt the clinical experiences of medical students with persons with ID so that these experiences increase not only knowledge and skills, but also help build attitudes congruent with community inclusion values. Clinical experiences beyond the provision of medical expertise that focus on facilitating the CanMEDS–family medicine roles of communicator, collaborator, and health care advocate can foster inclusive attitudes by medical students working collaboratively with persons with ID and their caregivers within the community system of services. Strategies could include,

but are not limited to, the participation of self-advocates with ID to talk about their health care experiences or the use of individuals with ID to serve as simulated or standardized patients for clinical training. (A comprehensive review of such approaches was published in *Advances in Psychiatric Treatment* in 2002.²⁶) Faculty development might also be required, as not all clinical teachers will be familiar with or comfortable caring for persons with ID. They must also espouse the values consistent with the philosophy of community inclusion—similarity and empowerment—in order to serve as effective role models for trainees. At a minimum, physicians should be aware of the legislation in their respective provinces related to the provision of supports to persons with ID. The *Services and Supports to Promote the Social Inclusion of Persons with Developmental Disabilities Act, 2008* in Ontario is an example of how legislation reflects and is meant to influence attitudes toward community living related to persons with ID.²⁷

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Contributors

Ms Ouellette-Kuntz and **Dr Burge** co-led the design of the survey, secured funding, obtained ethics approval, supervised data entry and analysis, and guided the writing of the manuscript. **Mr Cleaver** completed a portion of the data analysis and interpretation and led the writing of the manuscript. **Dr Isaacs** assisted in the design of the survey, obtained ethics approval, supervised data collection, and commented on drafts of the manuscript. **Dr Lunsky** assisted in the design of the survey and commented on drafts of the manuscript. **Dr Jones** commented on drafts of the manuscript. **Ms Hastie** assisted with data collection and data entry and contributed to writing early drafts of the manuscript. All authors have reviewed and approved the final paper to be submitted.

Competing interests

None declared

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