**Are Clinical Students More Receptive to diverse groups?**

Abstract

**Background**. Cultural competence (CC), also known as cultural intelligence (CQ), is considered a necessary skill in clinical professions providing service to diverse populations. Though CC has become part of curriculum, little is known about receptiveness, or initial levels entering students and differences between clinical and non-clinical programs.

**Method**. First-year entering undergraduate students (n=171) from diverse demographic and study domains (social work, nursing, behavioral sciences) participated in an online survey assessing CQ.

**Results**. Significant differences were found so that those in clinical professions were more receptive to inter-cultural exchange at the outset of their training in the motivational, cognitive, and meta-cognitive dimensions, but not in the behavioral dimension.

**Conclusion**. These finding suggest that the enhanced receptiveness among clinical students needs augmentation in order to be realized behaviorally. CQ augmentation could also serve as an indicator of programs’ effectiveness.

*Keywords:* cultural intelligence, cultural competence, minorities, clinical professions

**Introduction**

 ‘‘Cultural competence’’ (CC), known also as “cultural intelligence" (CQ) (Yari & Richter, 2020), is considered an essential skill in clinical professions such as social work, nursing and psychology, as these fields involve working with culturally heterogeneous populations (Dean, 2001) . Cultural competence in the clinical arena is defined as behaviours, characteristics, and procedures that enable an institution or individual to function effectively in multicultural situations (Cross et al., 1989).

 Assessment of cultural competence among service providers addresses three components: (1) self-awareness towards the service user’s culture; (2) knowledge of the service user’s culture; and (3) interventions skills for attending to cultural diversity (Green, 1999; Lum, 2011; National Association of Social Workers (NASW), 2015; Papadopoulos et al., 2004; Sue, 2005; Sue & Sue, 2003). Several authors have noted that though CC has become a central theme in clinical professions, its meaning has remained elusive, possibly because of diverse conceptualizations and an overwhelming number of extant measures (Al-Krenawi & Graham, 2000; Betancourt et al., 2005; Dean, 2001; Jani et al., 2016).

Contemporaneously to the clinical literature, cultural intelligence has been labelled as cultural quotient (CQ) in the management literature and defined as an individual’s attribute: the capability of an individual to function effectively in situations characterized by cultural diversity (Earley & Ang, 2003). According to Earley and Ang (2003), CQ is comprised of four dimensions facilitating intercultural effectiveness: metacognition, cognition, motivation, and behavior. Specifically, those with high CQ are consciously aware of others’ cultural preferences and actively adjust their mental models during and after intercultural interactions (metacognition). They possess knowledge about cultures and cultural differences (cognition) and are capable of directing culturally diverse situations (motivation). Finally, they vary their actions contingent on the situation (behavior). The two literatures share a focus on the micro level. However, the conceptualization of CC is less comprehensive, which could explain the proliferation of measures (Kumaş-Tan et al., 2007).

 Cultural attributes underlying the values, beliefs, and behaviors of both the service user and the service provider are critical to an effective clinical encounter (Baum, 2012; Jani et al., 2016; Kadan et al., 2017; Lee & Weiss, 2009). Hence, assessing whether students in clinical professions which serve diverse population groups, as in Israeli society (Kadan et al., 2017), are receptive to outgroup members can have an important role in promoting cross-cultural competence and in facilitating patient outcomes (Baum, 2012; Kadan et al., 2017; Weinberg-Kurnik et al., 2015).

The few studies on education/training among students in clinical professions indicate a positive increase in competence along the educational process (Meydanlioglu et al., 2015; Musolino et al., 2010). However, CQ as a malleable individual-level competence (Van Dyne et al., 2012) has not been compared between students from different academic disciplines (clinical and non-clinical) in the context of the socio-political conflict, such as between Jewish and Arab students studying together in Israel (Paul-Binyamin & Haj-Yehia, 2019) in the context of an-going Israeli-Palestinian conflict (Nadan & Ben-Ari, 2015).

This report is part of a bigger study (Segev et al., 2020) in which we documented higher CQ among minority-group students and a negative association between CQ and outgroup social distance. In the current study, we examined differences in CQ by study domains, comparing first year students (N=180) in clinical professions (nursing, social work) to students in behavioral sciences. The latter do not train for a profession at the bachelor level. We hypothesized that students in clinical domains, by virtue of choosing a profession focused on helping people, are more inclined towards the other and possess, already at the onset of training, a higher CQ, as compared to students in non-helping domains (H1). We also examined the association between CQ and knowing other languages, the later hypothesized as a resource for CQ (H2).

**Method**

First year undergraduate students (n=171) of nursing, social work and behavioral sciences from a college in Central Israel participated in the study. Most students (n=92) studied behavioral sciences, 32 studied social work and 42 studied nursing. Students were invited to fill in an online survey and expressed explicit consent by clicking an "I agree" box regarding participation. Participants’ age ranged from 18 to 45 (M=24.02, SD=3.75), most were women (n=161, 89.4%), single (n=102, 56.7%), and described themselves as secular/not religious (n=108, 60.0%). Students self-identified themselves as Israeli (50%), Jewish (38.3%) and Arab (11.6%). The study was approved by Internal Review Board [#2018-25 L/nd].

CQ was measured by 34 items tapping its four dimensions (Van Dyne et al., 2012). The internal reliability of the total score in this sample was α=.93.

The independent variables were study domain and non-native language proficiency. The dependent variable was CQ. The examination of CQ by study domain was conducted using a planned comparison ANOVA. The association between CQ and non-native language proficiency was carried out by computing a Pearson correlation. The analyses were performed using SPSS 23 (IBM Corp., 2015).

**Results**

The planned comparisons yielded significant differences between the clinical professions (social work, nursing) and the behavioral sciences on overall CQ and the motivational, cognitive, and meta-cognitive CQ, *t* (168) = 3.32, *p*=0.009, *t* (168) = 4.44, *p* < 0.001, *t* (168) = 3.22, *p* < 0.002, and *t* (168) = 2.63, *p*=0.009, respectively, so that students in clinical professions exhibited a higher CQ. There were no significant differences between the groups in behavioral CQ, *t* (169) = 0.76, *p*=0.61.

A Pearson correlation between CQ and non-native language proficiency was computed. CQ was found associated with proficiency in non-native languages, such that the higher the CQ, the more proficient a person was; this high association holds for motivational and cognitive CQ (*r* = 0.28, *p* < 0.001 and *r* = 0.15, *p* < 0.05) but not for meta-cognitive, behavioral, and overall CQ.

**Discussion**

Our comparison of the CQ of students in different academic disciplines (clinical vs. non-clinical) documented significant differences in motivational, cognitive, and meta-cognitive CQ dimensions between students in clinical domains to a non-clinical discipline (behavioral sciences). There was no significant difference in the behavioral dimension of CQ. CQ was also found to be associated with knowing foreign languages.

Our study joins the few studies which compared CC between academic disciplines and between ethnic groups (Meydanlioglu et al., 2015; Musolino et al., 2010) or examined its variability during the clinical training level (Musolino et al., 2010; Te et al., 2019). Te et al. (Te et al., 2019) found that students from healthcare disciplines, most often women from culturally and linguistically diverse communities, similar to participants in our study, reported high scores of cultural competence prior their training. Meydanlioglu et al. (Meydanlioglu et al., 2015) also observed high levels of cultural sensitivity among medical and nursing students, though no significant differences were reported by study domain. They also reported increased cultural sensitivity among speakers of a foreign language. The positive association between foreign language mastery and CQ documented in our study thus augments findings on this association (Erez et al., 2013; Lee Olson & Kroeger, 2001; Meydanlioglu et al., 2015), positioning it as a resource.

CQ is conceptualized as malleable in the organizational literature and, indeed, increases in CQ during a training program are reported (Erez et al., 2013; Ott & Michailova, 2018), including in the behavioral dimension. CQ increase was also documented along the training years of healthcare professionals (Musolino et al., 2010), though this is not always the case (Te et al., 2019). Our findings suggest that clinical students start their training with high levels of cultural responsiveness than non-clinical students, but that this relatively higher level is not yet realized in the behavioural dimension, at least in comparison to others. This calls for nurturing the positive predisposition into skills, enabling trainees to function effectively with diverse audiences in clinical encounters.

We call for reinforcing the goal of educating and fostering CQ by providing data on the extent to which the goal is being attained. Specifically, we suggest examining students' CQ responsiveness at their entry and then subsequently along their training. This will assess trainees’ CQ progress at the micro level while also assessing programs’ effectiveness at the meso level.

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