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Reducing Health Inequalities Trough Digital Options in Mental Health: A Physician's

Perspective

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Abstract

This paper explores the physicians' perspective regarding the potential of computerised Cognitive Behavioural Therapies (cCBTs) to overcome inequalities in the context of mental health care provision. The main benefits were related to the ability of cCBTs to provide care in a convenient and efficient manner, enhancing its accessibility. These aspects were perceived more important than cost-effectivity of treatment, which is often claimed to be the key benefit of cCBTs. Age and general acceptance of CBT were the most significant individual-level separators of perceptions, while the sector in which the physician works was seen as the main structural-level separator.

Keywords: health inequality, mental health, cCBT, physicians, health services, health care provision

Reducing Health Inequalities Trough Digital Options in Mental Health: A Physician's

Perspective

Health inequality is defined as a systematic difference in health caused by social variables such as social class, gender, race or place. It is also the result of imbalances in the health care system, such as unequal access to services (WHO, 2010). In the Nordic countries, the reduction of health inequality by providing "equal opportunities" and ensuring the "needbased availability of public services" has been a major political goal for decades (Povlsen, Karlsson, Regber, Sandstig, & Fosse, 2014). Despite such efforts, considerable numbers of patients with mental health issues are not getting the help they need; this is also the case in other OECD countries (OECD, 2014; Patana, 2014; 2015). This is mainly due to the accessibility of mental health services that are often part of a specialized health care system, which is overburdened as the primary care practitioners do not possess the necessary resources, time and expertise to treat mild-to-moderate cases (OECD, 2014). This underdevelopment of mental health services within primary care has led to a threshold for admittance to secondary care, for example in Finland (Patana, 2014). Unequal distribution of care is also an issue: even if services such as therapy are available, patients might not be fully reimbursed (OECD, 2014), or reimbursement is only provided for a specific segment, thereby discriminating against individuals based on their wealth. The long distances that patients are often required to travel to access care and the unequal distribution of trained therapist also undermines equality. The timeframe in which services are provided may also constitute a barrier, as successful participation in therapy requires patients to attend several sessions. This is especially germane for those in full-time work, who have reported lack of time as the main reason for their health care needs going unmet (Lindström, Rosvall, & Lindström, 2017). In addition, the stigma associated with mental health is exacerbating the issue; in Sweden, for

example, only a handful (3–4%) of those suffering from mental health problems have actually sought psychiatric care (Patana, 2015).

The accessibility of mental health services is a global issue, with restrictions on the availability of cost-effective and affordable interventions to treat mental health being seen in many areas. In an attempt to bridge the treatment gaps, various online solutions have been developed (see e.g. Musiat, Goldstone, & Tarrier, 2014). The use of computerised Cognitive Behavioural Therapies (cCBT) has been seen as a response to the high demand for CBT, coupled with shortages of trained therapists (Du, Quayle, & Macleod, 2013) and viable option for extended antidepressant prescription (Montero-Marin et al., 2015). CCBT is a psychosocial intervention to treat mental disorders that is delivered via digital format. It is based often on structured behaviour change content having a certain medical goal. Especially in the primary care level, cCBT has been mooted as a promising approach to taking the first step in treatment (Learmonth & Rai, 2008). Additionally, in the Nordic territories, innovative web-based solutions have been established to improve the diffusion of knowledge regarding primary care and to offer computerised therapy options for those in need (Patana, 2014; 2015).

Despite the potential of cCBTs and the positive attitudes in many countries studied, general uptake has been low in these nations, including the US (Carper, McHugh, & Barlow, 2013), Australia (Donovan, Poole, Boyes, Redgate, & March, 2015), UK (Du et al., 2013; Stallard, Richardson, & Velleman, 2010; Whitfield & Williams, 2004) and Sweden (Vigerland et al., 2014). As Stallard et al. (2010) pointed out, "A successful dissemination of this method is more likely if the clinicians who will work with or refer to cCBT are willing to do so" (p. 112). Therefore, it is crucial to understand physicians' point of view within this process. The studies examining physicians and cCBT have mainly been focused on barriers related to adoption, with the lack of knowledge being identified as the chief obstacle over the

years (Carper et al., 2013; Donovan et al., 2015; Lindsröm et al., 2017; Learmonth & Rai, 2008; Montero-Marin et al., 2015; Stallard et al., 2010; Whitfield & Williams, 2004). There has been less discussion of the perceived benefits on the part of physicians. As cCBTs are frequently labelled as a viable option for providing cost-effective care (Andersson & Cuijpers, 2008), within those few studies to have taken such an approach, aspects such as increased availability, the possibility of alternative means of communication (Vigerland et al., 2014) and the potential to use cCBTs at home (Stallard et al., 2010) have been seen as more meaningful.

To continue this discussion, the aim of this paper is to increase our understanding of the potential of cCBTs to overcome inequalities in the context of mental health as seen from the physicians' perspective. To achieve this, two research questions have been formulated:

- 1) What are the key benefits that physicians associate with cCBTs?
- Which structural and individual factors differentiate physicians' perceptions and hence have the potential to violate equal opportunities as regards cCBT provision?

The data for this study came from Finland, where cCBT options have been introduced over the last few years; in 2014, the use of cCBTs as a treatment, for example for depression, was included as a viable option in the Current Care Guidelines (Duadecim, 2016).

Methodology

This paper reports part of a larger nationwide survey data that were collected in early 2017 from physicians who were randomly selected from two clusters supplied by the Finnish Medical Association: unspecialised and specialised physicians (in either general medicine or psychiatry). This survey garnered 412 responses with a 16% success rate. To respond the first research question, the results related to perceived advantages (see Stallard et al., 2010;

Vigerland et al., 2014) are reported. The qualitative material is manually coded and thematised. To respond the second research question, key attitudinal and behavioural measures are compared based on relevant structural- and individual-level factors that are seen challenging equal care. These relevant structural- and individual-level factors are explained next more comprehensively. The compared key factors measures attitudes towards cCBTs, intention to prescribe cCBTs (Venkatesh, Morris, Davis, & Davis, 2003), knowledge of the approach (Stallard et al., 2010; Vigerland et al., 2014) and beliefs regarding cCBTs efficiency (modified from Lazuras & Dokou, 2016). In addition, two questions related to job relevance (adapted from Lazuras & Dokou, 2016) are reported. All items were measured using a 7-point Likert scale and computed into one factor to more effectively assess the findings. Statistical analyses were performed using the SPSS software package version 24.0. Kruskal-Wallis and Mann-Whitney tests were deployed to analyse differences in responses.

Structural-level Factors

Inequalities in access to mental health services remain a major obstacle in Finland, with the availability of such services varying on a regional basis (Patana, 2014). As cCBTs have been suggested as offering a means to increase availability, a comparison of different expert responsibility areas (ERA) is called for. In Finland, there are five ERA areas: HUCH, TUCH, TAUH, KUH and OUH (for more information, see Tolvanen, Ruskoaho, & Parmanne, 2013). In addition, cCBTs are seen as useful in overcoming geographical barriers, and therefore perceptions may be more positive in areas where the distances separating patients from care are an issue (Vigerland et al., 2014). Accordingly, the estimated distances travelled by patients are used as the basis for comparison. Staying in the Finnish context, three separate channels for primary care delivery (municipal, private and occupational health care) are found to differ in terms of their scope, user fees and waiting times, which puts patients in unequal

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positions (Patana, 2014). Therefore, a comparison of the public and private sectors (occupational care is provided through both) will be conducted.

Individual-level Factors

Because the physician has the power to make decisions about treatment mainly based on his/her own understanding, being treated by different physicians has the potential to influence the care that is provided. For example, the treatment orientation (Vigerland et al., 2014) or theoretical approach (Wangberg, Gammon, & Spitznogle, 2007) has been seen as influencing perceptions related to cCBTs. Therefore, in this context, whether physicians accept CBT principles in general is seen as a relevant point of comparison. Since it is suggested that there are differences in professionals' knowledge and competencies to provide mental care within primary and special care levels (OECD, 2014), it is fruitful to compare them based on field of specialisation, which would indicate whether they are operating at primary or secondary levels. In addition, as regards the adoption of new ideas, age has found to be a significant predictor and older people are especially seen to be more likely to encounter difficulties in processing new information and practices (Rogers, 1995). In the context of technological innovations, sex has also been suggested as an important determinant. For example, Lazarus and Dokou (2016) found that female psychologists have a significantly more positive attitude towards online counselling than males. As demographic characteristics, age and sex therefore have the potential to explain perceptions, they will be used in this comparison.

Results

Sample Characteristics

The sample characteristics are summarised in Table 1.

Perceived benefits

A majority of respondents (71.1%, n = 293) believed that the prescription of cCBTs for patients was beneficial, just under a quarter (23.1%, n = 95) were unsure and a handful (5.8%, n = 24) did not see any benefit. Qualitative descriptions (n = 337 comments) of these concerns revealed four main categories and 16 themes (see Table 2). The most frequently mentioned benefits were related to the category "Effective form of treatment" (addressed in 61%, n = 207 comments), which referred to expressed beliefs about the efficiency of this type of treatment option. Half of the comments were related to the "Convenient delivery mode" of care (50%, n = 170), referring to the potential of the Internet option to overcome emotional barriers (i.e. stigmatisation) and the inability to participate in face-to-face treatment. "Increased accessibility" (43%, n = 146) was identified as a third main category for capturing comments addressing this issue. As a fourth category, benefits related to cCBTs as a "Resource-wise" (12%, n = 41) option were identified. Table 2 provides detailed description of identified themes.

Structural-level factors defining perceptions

Table 3 summarises the group differences based on structural-level factors. As table 3 shows, the ERA area separated the respondents in their knowledge and attitude. Those who worked in the area of HUCH had the highest knowledge, differing from other districts significantly (p < .05). This is to be expected, as digitally delivered mental health services are currently developed within the HUCH area. Interestingly, those who worked in TAUH and OUH appeared to hold the most positive attitude towards services, followed by HUCH, TUCH, and KUH. Within the TAUH and OUH areas, the concentration of overall technological knowledge and development, and the proportion of young physicians, are the highest in Finland (Tolvanen et al., 2013). The average distance the patients had to travel to see their physician was a non-significant influencer on the measured factors.

Those who worked in the public sector held significantly more positive perceptions based on their attitude, efficiency beliefs and level of importance attached to the provision of mental health services, and saw most positively their relevance to their profession. In contrast, those who worked in the private sector harboured the least positive attitudes, efficiency beliefs and perceived importance of the provision of mental health services, and considered cCBTs to be less relevant to their profession. (See Table 3.)

Individual -level factors defining perceptions

Table 4 summarises the group differences based on individual-level factors. In general, whether respondents agreed or somewhat agreed with CBT principles appeared to significantly influence all the studied aspects, as well as constituting the largest differences among groups. Naturally, those who agreed held more positive attitudes, efficiency beliefs, knowledge, intention, and relevance to health care or within their profession. (see Table 4.)

The field of specialisation separated respondents in terms of their knowledge, intention to use and relevance to their profession. As could have been expected, those who specialised mainly in the psychiatric field had the highest knowledge. This also indicates that an understanding of these types of services resides in special care, rather than in primary levels of care where it is most required.

Interestingly, those who worked in occupational health had the highest intention to use cCBTs within their work; those in general medicine and psychiatry had almost as high intention, while those specialising in other fields were the most unwilling. That said, the intention was low within all groups. Those who specialised in psychiatry had the most positive perception of the relevance of cCBTs to their profession. (See Table 4.) This might be due to the practice by which patients are directed into special care even if they are only suffering from mild or moderate problems. Other possible explanation might be that those

specialising in psychiatry, who also suffer from a lack of resources within therapy provision, resort to prescribe cCBTs or are interested in seeing whether it is beneficial for treating more severe cases.

As table 4 shows, age was found to be significant separators of respondents in all aspects studied expect the importance of cCBTs in the provision of mental health services. The youngest respondents (< 30 years) had the most positive attitudes and efficiency beliefs regarding cCBTs and most positively viewed their relevance to their profession. Conversely, the oldest participants (61–70 years old) harboured the least positive attitudes and efficiency beliefs and saw cCBTs as being the least beneficial to their profession. Interestingly, the youngest respondents had the least knowledge while the most informed were those in the 41–50 bracket. This latter group also had the highest usage intention. It can be assumed that this group consists mainly of those who work in psychiatry in their specialised field, have a longer work history and therefore have a better understanding of the different treatment options and their use within various cases. It appears that while the younger professionals are more opportunistic, they do not have the required level of knowledge or are not yet in a position where they would consider using the services. The sex did not differentiate the responses significantly.

Discussion

This paper explores our understanding of the potential of cCBTs to overcome health inequalities in the context of mental health from physicians' perspectives. First, the key benefits that physicians associate with cCBTs were identified. These benefits that physicians perceive important are crucial to understand and explicitly address in order to fully understand cCBTs potential within health care provision. The results indicate the significant promise held by cCBTs for removing inequalities related to mental health care provision,

especially as regards not just furnishing a solution to resource shortages, but also offering an alternative option for the delivery of effective care and the overcoming of a range of barriers in this area.

The ability of cCBTs to provide care in a convenient manner for the patient was perceived as more important than the cost-effectivity of the treatment. The approach was especially viewed as an option for obviating time- and location-based obstacles and providing easy access to care for those in need, such as individuals who work during the daytime. High potential was also identified for the reaching of young adults and those who are accustomed to communicating or spending a great deal of time online. This is particularly important, as mental ill health among the younger demographic has been pinpointed as being on the rise for example in Sweden and Finland (Patana, 2014, 2015), in the future. In addition, changes in the job market have been labelled as exacerbating mental ill health among the workforce, indicating the need for increased resources to meet the needs of these segments. In this study, cCBTs were identified as being able to reach these types of special groups of people that are in danger of missing out on formal care provision. CCBTs' potential to make care available for larger amounts of people was also recognised as an important benefit.

In addition, cCBTs' unique value in supporting patient autonomy and self-esteem was acknowledged by physicians. While this aspect is rarely mentioned in cCBT adoption discussions, it is an important point as the current trend in health care provision is to empower patients to take greater ownership of their own health. It seems likely that these types of interventions have the potential to support a more active role on the part of patients. While the efficiency of cCBTs was recognised, it was clearly agreed that this treatment option is not suitable for everyone. In several comments, cCBTs aptitude for the treatment of mild and moderate cases in the early stages, and its being a good match for patients familiar with the

internet, were mentioned as specific conditions, which is well in line with the suitable patient profile for this type of treatment option.

Second, group comparisons were conducted to more deeply understand the factors that separate physicians' perceptions. These identified differences suggest potential inequalities in the provision of cCBTs as a treatment option; by understanding them, it is possible to more effectively overcome them.

Based on the individual-level factors, age and general acceptance of CBT were the most significant separators. Although the youngest respondents appeared to be the most enthusiastic about cCBTs, they also had the least amount of knowledge. Therefore, it might be worth paying attention to physicians' education in regards to the new digital options for treatment. In addition, the least enthusiastic ones were the oldest participants partly confirming the general findings relating to age and new innovations (Rogers, 1995). However, it should be noted that only the oldest group seemed differing others greatly indicating that when one gets close to retirement, willingness to absorb further education declines.

The result related to the field of specialisation confirms the notion of a knowledge gap between primary and secondary levels of care. A good question is how can this gap be more efficiently diminished. Physicians specialising in occupational health had the highest usage intention, which indicates great potential in that segment and is also reflected in the qualitative findings on cCBTs' suitability to meet the needs of those in the workforce.

Turning to the structural-level factors, interestingly, the greatest differences were found to stem from the sector where the physician worked. This relates to the issue of different channels in primary care putting people in unequal positions as regards the attainment of care, and therefore the differences are rather alarming. In general, the public sector is overcrowded

and working with limited resources, which was certainly the case in this scenario; therefore, the private sector may have greater resources or a patient group that is more willing and able to pay higher amounts for its care. Interestingly, the distance travelled by patients did not separate the respondents, indicating that the potential of cCBTs to overcome geographical barriers might not be fully realised or appreciated.

Limitation and Future Research Suggestions

First, the limited sample size and use of data from just one Nordic country (Finland) imposed some restrictions on the interpretation and generalisation of the findings. Future studies could address this issue by collecting similar data from other countries and using mixed methods for data collection (i.e. phone survey). In addition, differences in health care systems and reimbursements for mental health services vary between countries, threatening the applicability of the findings in other contexts. For example, while the differences between the private and public sectors might not be an issue in certain other countries, some other structural separator may be identified in those nations. Additionally, the qualitative analysis was built on the foundation of an interpretative paradigm and thereby challenges the comparison of the results with earlier findings. Future studies could adopt a more structural approach to verify the advantages found in this work.

Conclusions

As shown by the results of this study, cCBTs have the potential to provide an effective and convenient option for the provision of treatment; therefore, this approach should be promoted in future discussions of digital treatment options. The most significant risk is that if cCBTs are posited as a cost-effective option to provide treatment, they might acquire a reputation as a second-class option that is extended to those who are not in a position to attain other forms of help. This does not reduce equality; in fact, quite the opposite. As the results

indicate, the decision to prescribe cCBTs should be done through careful consideration in which the real added value, as identified within this study, is understood. As this study demonstrates, cCBTs offer a means of overcoming inequalities in health care provision caused by monetary resources, geographical barriers or a shortage of trained therapists, as well as providing a viable option for those who would not be able or willing to participate in face-to-face sessions. A more equal option for health care delivery would be hard to find, unless the political and individual-level factors position cCBTs as unequal.

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Table 1
Sample characteristics.

| | n | % |
|---------------------------------|-------|----|
| | n | 70 |
| ERA area* | | |
| HUCH | 151 | 37 |
| TAUH | 71 | 17 |
| KUH | 70 | 17 |
| TUCH | 65 | 16 |
| OUH | 53 | 13 |
| Distance for patients | | |
| About 10 km radius | 136 | 33 |
| About 30 km radius | 124 | 30 |
| Over 50 km radius | 152 | 37 |
| Public-private | | |
| Public | 303 | 74 |
| Private | 109 | 26 |
| CBT acceptance | | |
| Agree with cCBT principles | 335 | 81 |
| Somewhat agree (includes n = 24 | 77 | 19 |
| who did not agree) | // | 19 |
| Field of specialisation | | |
| General medicine | 146 | 35 |
| Occupational health care | 47 | 11 |
| Psychiatric care | 170 | 41 |
| Other | 49 | 12 |
| Age | | |
| 30 or under | 41 | 10 |
| 31–40 years | 96 | 23 |
| 41–50 years | 76 | 18 |
| 51–60 years | 134 | 33 |
| 61–70 years | 65 | 16 |
| Sex* | | |
| Female | 287 | 70 |
| Male | 119 | 30 |

^{*} There exists missing (n = 2-6) data that is not imputed.

Table 2 *Identified benefits*.

| Theme | n | % | Definition | | |
|-----------------------------|-----|----|--|--|--|
| Effective form of treatment | 207 | 61 | Beliefs about the efficiency of this type of treatment option. Compare effective forms | | |
| | | | of treatment (Vigerland et al., 2014). | | |
| Theme 1: General comments | 70 | 21 | Comments that generally acknowledged the efficiency by paralleling it with the face- | | |
| addressing applicability of | | | to-face option providing the same outcomes, mentioning the proof of its efficiency or | | |
| treatment | | | stating its applicability as treatment option. Although efficiency was acknowledged, | | |
| | | | it was clearly agreed that it is not suitable for everyone. In many comments, | | |
| | | | suitability for the treatment of mild-to-moderate cases in the early stages, suitability | | |
| | | | for patients familiar with the internet and so on were mentioned. | | |
| Theme 2: Unique value of | 38 | 11 | Comments addressing the use of these types of treatments might empower patients | | |
| cCBT options | | | by increasing their self-esteem, helping them to better understand and manage their | | |
| | | | condition, pushing them to act and providing a sense of control. Compare "useful for | | |
| | | | psychoeducation" (Stallard et al., 2010) and "advantages with self-help" (Vigerland | | |
| | | | et al., 2014). | | |
| Theme 3: Requirement for | 19 | 6 | Comments addressing that in order to be effective, the patient needs to be motivated | | |
| motivation and ability | | | and have the ability to function. | | |
| Theme 5: Complementary | 12 | 4 | Comments addressing their position as being beneficial and complementary to other | | |
| resource | | | treatment options. Compare "complement" (Vigerland et al., 2014). | | |
| Convenient delivery mode | 170 | 50 | The potential of the internet option to overcome emotional barriers (i.e. | | |
| | | | stigmatisation) and the inability to participate in face-to-face treatment. Compare | | |
| | | | "ease of access" (Stallard et al., 2010) and "increased availability" (Vigerland et al., | | |
| | | | 2014). | | |
| Theme 6: Lowers barriers to | 41 | 12 | Reduces barriers to the application of help and getting access to the treatment. Offers | | |
| getting mental help | | | an easy option and reaches those who fear stigmatisation over seeking help. Compare | | |
| | | | "reduced stigma" (Stallard et al., 2010). | | |
| Theme 7: Easy option for | 121 | 36 | Captures two sub-themes. | | |
| patient | | | | | |
| Easy option sub-theme 1: | 33 | 10 | Makes participating in therapy easy and effortless. Increases compliance and | | |
| General themes | | | engagement with treatment. | | |
| Easy option sub-theme 2: | 53 | 16 | As it is not tied to a certain time, it enables the overcoming of temporal barriers by | | |
| 24/7 access | | | providing access to care when it is most convenient for patients. Reaches, for | | |
| | | | example, those who are working/occupied during the daytime. | | |

| ### assists in overcoming spatial distances, and it can also be done from home. Enables the usage of services for those who have to travel a long distance to access care and those who have problems leaving home (i.e. those suffering from immobility, cannot afford to travel to therapy sessions, take care of children at home) Theme 8: Reach | Easy option sub-theme 3: | 69 | 20 | As it is provided through a digital interface, the distance does not matter, which |
|---|---|---------------------|--------------------|---|
| those who have problems leaving home (i.e. those suffering from immobility, cannot afford to travel to therapy sessions, take care of children at home) Theme 8: Reach 57 17 Compare "preferred medium" (Stallard et al., 2010) and "appealing medium" (Vigerland et al., 2014). Reach sub-theme 1: Special 58 11 Reaches groups who would not be willing to participate in treatment for reasons other than the time and distance involved or who prefer the internet as a delivery option. These groups include those with certain personalities, those who are unwilling to leave their home, are shy, are unwilling to interact or participate face-to-face or suffer from social isolation (for example, young males who spend most of their time online). Reach sub-theme 2: Natural 60 Comments addressing groups for whom physicians believe interacting through the internet would be more natural. The most often mentioned group is young adults and those who are used to communicating or spending a lot of time online. Increased accessibility 146 43 Compare "replacing face-to-face contact" (Stallard et al., 2010) and "alternative means of communication" (Vigerland et al., 2014). Theme 9: Availability of 84 25 Captures comments addressing these types of options, making the attainment of treatment health services 15 read access to care access to treatment possible as it is often difficult even to get treatment for mental health issues, unless they are already too severe. Makes access to treatment available for larger amounts of people. Theme 10: Enables fast 42 12 Patients do not have to stay on a waiting list for a long time, enabling the commendate health services 15 regardless of location Theme 12: Equalises quality 16 Comments addressing these types of options equalise quality of care and provide access to standardised, reliable care as the patient is not dependent on local offerings. 17 Provided 18 Patients do not have to stay on a waiting list for a long time, enabling the access to standardised, reliable care as the patien | Flexible location | | | assists in overcoming spatial distances, and it can also be done from home. Enables |
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| Decreases need for face-to-face meetings or other more intensive options. | access to care Theme 11: Equalises access to mental health services regardless of location Theme 12: Equalises quality of mental health services provided Resource-wise option Theme 14: Cost-effective option Theme15: Saves scarce | 35 8 41 32 | 10 2 12 9 | Comments addressing these types of options equalise quality of care and provide access to standardised, reliable care as the patient is not dependent on local offerings. Comments addressing cCBT as resource-wise option. Cost-effective and economical option for both the service provider and patients. Scarce (overloaded) treatment resources (available psychiatric nurses and physicians) |

Table 3
Structural-level influence factors

| | | Efficiency beliefs of cCBTs as treatment option | Knowledge of cCBTs | Intention to prescribe cCBTs | Relevance of cCBTs in mental healthcare provision | Relevance of cCBTs in own profession |
|--|--------|---|--------------------|---------------------------------------|---|---|
| Mean ³ | 5.4 | 5.0 | 2.8 | 3.4 | 5.3 | 4.0 |
| Standard deviation ³ | 1.4 | 1.3 | 1.4 | 1.8 | 1.5 | 1.7 |
| ERA ¹ (group differences) | 0.050* | 0.086 | 0.000* | 0.084 | 0.285 | 0.087 |
| HUCH | 5.4 | 4.9 | 3.1 | 3.5 | 5.3 | 4.2 |
| KUH | 5.2 | 4.9 | 2.4 | 3.2 | 5.1 | 3.5 |
| OUH | 5.6 | 5.3 | 2.6 | 3.4 | 5.4 | 3.9 |
| TAUH | 5.7 | 5.2 | 2.9 | 3.6 | 5.5 | 4.2 |
| TUCH | 5.3 | 4.9 | 2.4 | 2.8 | 5.1 | 3.7 |
| Distance for patients ¹ (group differences) | 0.226 | 0.262 | 0.803 | 0.878 | 0.271 | 0.850 |
| About 10 km radius | 5.2 | 4.9 | 2.7 | 3.3 | 5.1 | 4.0 |
| About 30 km radius | 5.4 | 5.1 | 2.7 | 3.4 | 5.3 | 3.9 |
| Over 50 km radius | 5.5 | 5.1 | 2.9 | 3.4 | 5.3 | 4.0 |
| Public-private ^{2 (group differences)} | 0.001* | 0.007* | 0.709 | 0.365 | 0.019* | 0.021* |
| Public | 5.5 | 5.1 | 2.8 | 3.3 | 5.4 | 3.6 |
| Private | 5.1 | 4.7 | 2.7 | 3.5 | 4.9 | 4.1 |

^{1.} Kruskal Wallis Test. 2. Mann-Whitney Test. 3. 7-point Likert scale * indicated significant differences (p < .05)

Table 4

Individual-level influence factors.

| | Attitude towards cCBTs | Efficiency beliefs of cCBTs as treatment option | Knowledge of cCBTs | Intention to prescribe cCBTs | Relevance of cCBTs in mental healthcare provision | Relevance of cCBTs in own profession |
|---|------------------------------|---|-----------------------|---------------------------------------|---|---|
| Mean ³ | 5.4 | 5.0 | 2.8 | 3.4 | 5.3 | 4.0 |
| Standard deviation ³ | 1.4 | 1.3 | 1.4 | 1.8 | 1.5 | 1.7 |
| CBT acceptance ² (group differences) | 0.000* | 0.000* | 0.000* | 0.000* | 0.000* | 0.000* |
| Agree with cCBT principles | 5.6 | 5.2 | 2.9 | 3.6 | 5.5 | 4.2 |
| Somewhat agree | 4.5 | 4.3 | 2.1 | 2.1 | 4.4 | 2.9 |
| Field of specialisation (group differences) | 0.676 | 0.886 | 0.000* | 0.019* | 0.347 | 0.000* |
| General medicine | 5.4 | 5.0 | 2.2. | 3.4 | 5.2 | 4.0 |
| Occupational health care | 5.5 | 5.2 | 2.5 | 3.7 | 5.4 | 3.6 |
| Psychiatric care | 5.5 | 5.0 | 3.5 | 3.4 | 5.3 | 4.3 |
| Other | 5.3 | 5.0 | 1.9 | 2.7 | 5.1 | 3.1 |
| Age ¹ (group differences) | 0.018* | 0.017* | 0.000* | 0.004* | 0.083 | 0.006* |
| 30 or under | 5.7 | 5.4 | 2.1 | 3.2 | 5.5 | 4.3 |
| 31–40 years | 5.5 | 5.1 | 2.5 | 3.1 | 5.4 | 4.1 |
| 41–50 years | 5.4 | 5.0 | 3.1 | 3.9 | 5.2 | 4.1 |
| 51–60 years | 5.4 | 5.1 | 3.0 | 3.5 | 5.4 | 4.0 |
| 61–70 years | 4.9 | 4.6 | 2.7 | 2.8 | 4.8 | 3.3 |
| Sex ² (group differences) | 0.970 | 0.640 | 0.482 | 0.564 | 0.702 | 0.638 |
| Female | 5.4 | 5.0 | 2.8 | 3.4 | 5.3 | 4.0 |
| Male | 5.4 | 5.1 | 2.7 | 3.3 | 5.2 | 3.9 |

^{1.} Kruskal Wallis Test. 2. Mann-Whitney Test. 3. 7-point Likert scale * indicated significant differences (p < .05)