

# Telepsychiatry in Assessment of Vocational Potential of Unemployed Individuals in Denmark

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## Abstract

**Background:** Access to mental health specialists in Denmark is limited due to long waiting time, especially in the remote areas. Telepsychiatry service, which provides quick and direct access across distances, has been tested as a means of clarifying the vocational potential of unemployed individuals with suspected mental conditions.

**Aim:** To examine, whether telepsychiatric assessments are feasible for clarification of vocational potential of suspected mentally ill persons, including immigrants.

**Methods:** A three-phase pilot project was carried out. Ten job centers, located in different parts of Denmark, participated by referring their clients to 'The Little Prince Psychiatric Center' in Copenhagen. Mental health specialists with the relevant language skills conducted the assessment interviews via videoconference and generated an assessment report. A satisfaction questionnaire was completed by the caseworkers and the clients.

**Results:** Forty nine unemployed individuals were referred by twenty caseworkers during a period of 19 months. A variety of psychiatric diagnoses was disclosed. The overall satisfaction with the telepsychiatry service was reported by the clients and the caseworkers.

**Conclusion:** Telepsychiatric assessments are feasible with unemployed individuals suspected to be mentally ill, including immigrants. Technical means used in telemedicine are also feasible in related contexts like vocational assessments.

**Keywords:** Telepsychiatry; Vocational assessment; Unemployment; Disability; Bilingual mental health specialists

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## Introduction

The non-governmental organization Psykiatrifonden (The Danish Mental Health Fund), whose mission is to provide information on mental health issues to the public, has recently published its results of a study of the Danish labour market. The study showed that mental illnesses and psychological difficulties are some of the main reasons impeding a growing number of unemployed individuals from entering and integrating into the labour market [1].

Another study of the Danish labour market, carried out by Danish Employer's Confederation in 2010, stated that Denmark has the largest share of disability pensions, provided on the grounds of mental disorders, when compared to the countries that are geographically close to Denmark [2]. In Denmark the provision

of the disability pension has increased by twenty percent in just eight years (ibid).

Additionally, functioning in the labour market has been identified as one of the seven targets for successful integration of foreigners into the Danish society [3].

The job centers in Denmark are units, funded by the Ministry of Employment of Denmark, that are among other things responsible for providing help in finding jobs and granting disability pensions. One of the specific responsibilities of a job center is to implement a vocational rehabilitation offer, which is usually relevant for individuals with physical, psychological and/or social difficulties. A vocational rehabilitation offer in Denmark means implementation of different activation programs such as

education or job training and state financial support. In order to offer a vocational rehabilitation program or grant a disability pension, a caseworker at the job center has to establish, that a working capacity of the individual in question is reduced. In case of suspected mental illness, the clarification of vocational capacity requires a professional statement from a mental health specialist. Mental health care in Denmark is frequently marked by long waiting times (for example, 3-6 months at private practitioners), and this problem is especially relevant in the remote areas due to scarcity of resources [4].

A recent pilot project has used telepsychiatry service as a means of clarifying working capacity of unemployed individuals with suspected mental conditions and aimed to improve access to mental health specialists. Telepsychiatry can be conceived as an integrated system of mental healthcare delivery that uses telecommunication across distances as an alternative to the face-to-face conventional modality [5]. High user acceptance and satisfaction as well as high reliability of telepsychiatry in general are well documented [6,7]. It has been suggested that psychiatric consultation and clinical follow-up treatment can be as effective when delivered by telepsychiatry as when provided face-to-face [6]. While various applications have been tested and developed over the last five decades, there have, to our knowledge, not been published reports demonstrating the usefulness of telemedical application in a specific setting, such as assessment of vocational potential of unemployed individuals with mental difficulties.

The pilot project involved job centers across Denmark and 'The Little Prince Psychiatric Center in Copenhagen. 'The Little Prince Psychiatric Center' provides telepsychiatry service to clients across Denmark and addresses problems like language and cultural barriers that hinder accuracy of diagnosis and speed of treatment, by matching patients to therapists of similar cultures and shared languages [4].

The aim of the present study was to examine, whether telepsychiatric assessments are feasible for clarification of vocational potential of suspected mentally ill persons, including immigrants.

## Materials and Methods

During the preparation phase of the pilot project, information about waiting time for a mental health specialist consultation at the different job centers across the country was gathered. Firstly, the job centers, where waiting time for unemployed individuals was between three and ten months long and traveling was inevitable due to shortage of mental health expertise in the area were identified. Secondly, the written and verbal information of the pilot project was given to the job centers. The given information contained a description of how two major issues can be addressed by the use of telepsychiatry: long waiting time for all the clients and language barrier in the case of immigrants. After the information was provided, it was offered to test telepsychiatry service as a means of assessing vocational capacity of the unemployed individuals with suspected mental illnesses. It was agreed, that if the pilot project receives a high level of satisfaction, the telepsychiatry service would be implemented on a permanent basis.

A total of ten job centers, located in different parts of Denmark, 64-299 km away from 'The Little Prince Psychiatric Center' in Copenhagen, have agreed to participate in the project and a written consent was obtained. Twenty caseworkers were selected by the job centers. The selection criterion was their attachment to the so-called "integration section", which implied that their main responsibility was handling the cases of immigrants, whose permanent or temporary impairments impeded them from obtaining or retaining jobs. In each case a caseworker was responsible for creating a profile of resources, which consists of medical, social and educational records, and drawing conclusions about the vocational potential of the individual in question based on those records. According to the Active Employment Act (Legislative Order no. 685 of 29 June 2005), caseworkers at the job centers have the right to receive these records about their clients.

During a period of 19 months (October 2010-April 2012), caseworkers referred 49 individuals: 63% women and 37% men. The mean age of the men was 40 years and that of the women was 39.9 years. The inclusion criterion for the referred clients was the necessity of a professional statement from a mental health specialist in order for a caseworker to be able to assess their vocational potential. Thus, clients were unemployed individuals with suspected mental illness of Danish as well as other origins.

All clients received written and verbal information about telepsychiatry prior to the initial session and had a choice of personal interview with a mental health specialist, which would mean a long waiting time and/or travel necessity. No approval from the ethics committee was required. Written information was translated into the clients' own language, while verbal information was given by the caseworker at each job center, either via an interpreter or in Danish for those clients whose language proficiency was satisfactory. After a description of the study, written informed consent was obtained from the subjects. The purpose of assessment was explained to each client by their caseworkers.

54% of the clients had previous work experience from working in Denmark, whereas 46% did not. 43% of the clients had previous work experience from before moving to Denmark, whereas 41% did not, and for 16% of the clients the question was irrelevant due to their age.

During the working phase of the pilot project, the task of the mental health specialists recruited by 'The Little Prince Psychiatric Center' was to provide a diagnostic assessment with subsequent treatment suggestions to individuals referred from the job centers. Upon receipt of a referral, the mental health specialists with the relevant language skills conducted the assessment interviews via videoconference. Upon completion of the interview, an assessment report was generated and sent back to the caseworker who had referred the client. The report contained a thorough description of: the client's background; psychological and somatic complaints; social and functional competences; as well as diagnosis, prognosis regarding working capacity and treatment suggestions. The diagnosis was assessed according to the definitions and criteria of ICD-10.

Job centers used the videoconferencing equipment installed in 3 different telepsychiatry stations in different parts of Denmark, that were connected to 'The Little Prince Psychiatric Center'. Technical support was provided by Dansk Telemedicine A/S. The stations were connected by 12/2 Mbit/s SHDSL connections (symmetric high-speed digital subscriber line). This resulted in high quality video transmissions. Confidentiality was maintained by the use of data encryption. The service was free of charge for all the participants involved, i.e., caseworkers and clients. Reimbursements to mental health specialists were made through project grants received.

As a part of the evaluation phase, clients were asked to complete a satisfaction questionnaire (Client Satisfaction Questionnaire-CSQ) either when leaving a facility or at their homes after completion of the assessment interviews. Clients were assured that their responses were voluntary, would remain confidential, and would be used only for the purpose of the survey and that their identity would not be published. The CSQ included 8 items presented in **Table 1**. The answers to the CSQ ranged from 'Yes, to high degree', 'Yes, to some degree' to 'No, only to less degree', 'Not at all' and 'Don't know'.

As another part of the evaluation phase, satisfaction questionnaires were completed by caseworkers (Caseworker Satisfaction Questionnaire-CwSQ) after receiving the assessment reports. The CwSQ included 7 items presented in **Table 2**. Answers to the CwSQ ranged from 'Yes, to high degree', 'Yes, to some degree' to 'No' and 'Don't know' with a possibility to elaborate on each item.

Data analysis was performed using the Statistical Package for Social Sciences (SPSS) (**Figure 2**).

## Results

Telepsychiatry assessment disclosed a variety of psychiatric diagnoses, as shown in **Table 3**. The overall satisfaction with the telepsychiatry service was reported by the clients and the caseworkers as shown in **Tables 1 and 2**.

Caseworkers reported a high level of satisfaction concerning waiting time, quality of the assessment reports and expressed a wish to use telepsychiatry in the future.

The clients distinguished two main advantages of using telepsychiatry: firstly, in regards to direct contact via their own language, which allowed them to express exactly what they wanted to; and secondly, not having to travel long distances to meet a mental health specialist.

The following success criteria for the pilot project were fulfilled:

1. Waiting time for the diagnostic assessment compared to typical periods of waiting time exceeding 3 months: 1 week (45%), 2 weeks (33%), 3 weeks (8%), 4 weeks (10%), 5 weeks (4%).
2. Established access to bilingual mental health specialists: bilingual psychiatrist and psychologists recruited by 'The Little Prince Psychiatric Center' have conducted interviews

**Table 1** Client satisfaction questionnaire.

	No. of respondents (n)	Yes, to high degree (%)	Yes, to some degree (%)	No, only to less degree (%)	No, not at all (%)	Don't know (%)
1. Did you get clear information about telepsychiatry?	49	19 (38)	17 (34)	3 (7)		10 (21)
2. Do you perceive "contact via TV" as uncomfortable?	49	3 (7)	5 (10)	15 (30)	21 (43)	5 (10)
3. Did you feel safe under telepsychiatry contact?	49	26 (54)	11 (23)	5 (10)	5 (10)	2 (3)
4. Have you been satisfied with sound quality?	49	26 (52)	17 (34)	3 (7)		3 (7)
5. Have you been satisfied with picture quality?	49	24 (48)	22 (45)			3 (7)
6. Did you achieve your goal via telepsychiatry/could you express everything you wanted to?	49	22 (44)	15 (33)	2 (3)	5 (10)	5 (10)
7. Would you recommend the telepsychiatry method to others?	49	23 (46)	15 (30)	3 (7)		8 (17)
8. Would you prefer contact with a doctor via a translator in the future?	49	6 (13)	2 (4)	6 (13)	13 (26)	22 (44)

**Table 2** Caseworker satisfaction questionnaire.

	No. of respondents (n)	Yes, to high degree (%)	Yes, to some degree (%)	No, only to less degree (%)	No, not at all (%)	Don't know (%)
1. Did you receive sufficient information about telepsychiatry?	20	10 (46)	8 (44)		1 (5)	1 (5)
2. Did you get answers to your questions at the time of referral?	20	14 (74)	6 (26)			
3. Are you satisfied with the quality of examination and report performed by specialist?	20	15 (77)	4 (18)			1 (5)
4. Are you satisfied with the waiting time from the referral to the receipt of the report?	20	16 (81)	2 (15)		1 (2)	1 (2)
5. Will you use the telepsychiatry method in the future?	20	15 (77)	2 (13)		1 (2)	2 (8)
6. Was there something you were unsatisfied with?	20	3 (18)			17 (82)	

**Table 3** Diagnoses.

Clients' diagnoses	n	%
F 43.1 PTSD	24	49,0%
F 41.1 Generalized anxiety disorder	2	4,1%
F 62.0 Long-term personality change following extreme stress	1	2,0%
F 25.9 Schizoaffective disorder, unspecified	1	2,0%
F 20.0 Paranoid schizophrenia	1	2,0%
F 43.9 Reaction to severe stress, unspecified	2	4,1%
Z 03.2 Observation for suspected mental and behavioural disorders	1	2,0%
F 90.0 Disturbance of activity and attention	1	2,0%
F 40.1 Social phobias	1	2,0%
F 34.1 Dysthymia	1	2,0%
F 33.1 Recurrent depressive disorder, current episode moderate	1	2,0%
F 43.21 Prolonged depressive reaction	2	4,1%
F 22.9 Persistent delusional disorder, unspecified	2	4,1%
F33.3 Recurrent depressive disorder, current episode severe with psychotic symptoms	1	2,0%
F 32.3 Severe depressive episode with psychotic symptoms	1	2,0%
F 60.8 Other specific personality disorders	2	4,1%
F 33.2 Recurrent depressive disorder, current episode severe without psychotic symptoms	1	2,0%
F 44.3 Trance and possession disorders	1	2,0%
F 43.25 Adjustment disorders with mixed disturbance of emotions and conduct	3	6,1%
<b>Total</b>	<b>49</b>	<b>100%</b>

in the clients' own language, without the assistance of interpreters. Seven languages were spoken during the pilot project: Arabic (25%), Bosnian (17%), Serbian (16%), Danish (16%), Russian (10%), Turkish (10%) and Dari (6%).

## Discussion

The pilot project generated assessments of unemployed individuals with suspected mental illnesses, mainly immigrants, with the aim of identifying vocational capacity.

One of the assumptions at the outset made on the basis of the results of relevant studies was that providing telepsychiatry in the same language between the client and the mental health specialist would increase the levels of satisfaction [8-11]. In line with our assumptions, the client questionnaire results reported high levels of satisfaction. It is presumed that conducting the interview in the client's own language would provide greater insight into the client's condition and thereby allow a more accurate diagnosis and prognosis regarding working capacity. For native Danes, the option of telepsychiatry meant they did not have to wait for long periods, nor travel long distances in order to get the required psychiatric assessment.

It has been indicated in relevant studies that client's satisfaction and willingness to cooperate depend mainly on the presence of therapeutic alliance [12,13]. It has also been observed, that a paradigm shift has taken place in many (if not all) psychotherapeutic traditions, that emphasizes the importance of relational factor, which manifests itself via therapeutic alliance [14]. Empathy, warmth and authenticity represent the most essential elements of the relational factor, that among other things allow therapist to attend to and explore subtle

indications of ruptures in the alliance [15,16]. It is clear that in case of immigrants, direct contact, without the assistance of an interpreter, is more likely to contribute to the authenticity of the client's experience and to the therapist's attention, thus establishing therapeutic alliance and a high level of satisfaction.

Another assumption at the outset was that telepsychiatry would be beneficial to the job centers because it provided direct and quick access to mental health expertise. This benefit could allow caseworkers to assign individuals to a vocational rehabilitation program faster than before. The answers supported our assumptions as seen in the results of the CwSQ.

The results of the present pilot project also suggest that having access to mental health expertise via telepsychiatry can be useful in ameliorating some of the issues identified with remote social work practice. Increasing research on remote social work practice has highlighted the concern of the scarcity of professional resources and reported that social workers sometimes find that they are expected to become knowledgeable about very diverse clinical issues and operate beyond the boundaries of their professional competency [17].

It can be argued, that the inclusion procedure may have imposed selection bias. It was the caseworker's task to assess, whether the presented by clients impairments, impeding them from obtaining or retaining jobs, were subject to a mental health expertise and thereby to establish the necessity of a referral to 'The Little Prince Psychiatric Center'. It can be hypothesized, that caseworkers did not propose telepsychiatric assessment to the clients, who would potentially refuse it. It should, therefore, be underlined that the selection principle limits the generalization of the results.

## Conclusion

The presented results suggest the following conclusions:

1. Telepsychiatry assessments are feasible with unemployed individuals suspected to be mentally ill, including immigrants. A pilot study using a sample of 49 unemployed subjects has demonstrated that.
2. Technical means used in telemedicine are also feasible in related contexts like vocational assessments. Acceptance by job center caseworkers is high as has been tested in a sample of 20 caseworkers in 10 different job centers.

It is believed that, with increasing experience, this model of providing telepsychiatry service to solve unemployment issues will be developed to further identify promising potential and resolve any limitations. Telepsychiatry will thus fulfill a new promise to contribute to the improvement of integration into the labour market.

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