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## **Hybrid Supported Employment Approach for Persons with Intellectual Disabilities in India**

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# Journal of Psychosocial Rehabilitation and Mental Health

## Hybrid supported employment approach for persons with intellectual disabilities in India: Evidence based case studies

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6 **Evidence based case studies**

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9 **Abstract**

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13 rate of labor force participation, relative to other disabilities due to various factors. This paper  
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15 presents two cases studies of persons with ID who were successfully provided a hybrid supported  
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17 employment approach of ‘train and place model’ and ‘place and train model’ by the Psychiatric  
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19 Rehabilitation Services (PRS) team.  
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30 Committee.  
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37  
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50 distress.  
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55 **Keywords:** Hybrid supported employment, Supported Employment, Case study, Rehabilitation,  
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4 **Hybrid supported employment approach for persons with intellectual disabilities in India:**  
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6 **Evidence based case studies**

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9 **INTRODUCTION**

10  
11 Studies have shown that employment provides financial security and improves the  
12 wellbeing and quality of life of persons with psychiatric and Intellectual Disabilities (ID) (Burns  
13 et al., 2007). Supported employment, with its focus on facilitating successful participation in  
14 integrated work settings, provides an alternative to the day care and sheltered workshop models  
15 (Michon et al., 2014). A systematic review conducted to understand the effectiveness of supported  
16 employment approach showed that it increased the length of competitive employment in  
17 comparison to other vocational approaches such as sheltered employment for persons with mental  
18 illness. Further the review also showed improvement in job retention period (Kinoshita et al.,  
19 2013). A feasibility study on supported employment of Persons with Severe Mental Disorders  
20 (PwSMD)in India showed that out of 63 PwSMDs who were part of the study, 32 (50.8%) were  
21 placed in competitive jobs, placement was actively attempted for 17 (27.0%) and 7 (11.1%) were  
22 referred for skill training. The study also reported that their disability scores reduced significantly  
23 and socio-occupational functioning significantly improved in those who were placed over a period  
24 of 6 months (Jagannathan et al., 2020). Studies have also reported the role of reasonable  
25 accommodation in sustaining employment for persons with disabilities (Jagannathan et al., 2020;  
26 Minsitry of Law and Justice, 2016; Rangarajan et al., n.d.)

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42 Studies have reported that persons with developmental disabilities have the lowest rate of  
43 labor force participation, relative to other disabilities (Khayatzadeh-Mahani et al., 2020). Skill  
44 deficits in multiple areas and lack of prior work experience function as internal barriers for  
45 employment, and paucity of exclusive skill training centers and other logistic barriers are external  
46 barriers (Thekkumkara et al., 2021). Other reasons for exclusion from employment are employers’  
47 unfavorable attitude and stigma towards persons with IDD (Khayatzadeh-Mahani et al., 2020).  
48 Deficits in core skills such as social skills. attention, interpersonal skills were also found to hinder  
49 persons with ID in maintaining their employment (Khayatzadeh-Mahani et al., 2020)

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57 Vocational skill training and vocational rehabilitation is one of the most important services  
58 provide by Psychiatric Rehabilitation Services (PRS) team. In PRS, persons with IDD attend self-  
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4 sustaining programs such as green skills, candle making, bakery and cafeteria (Roses Café) section  
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6 for day to day engagement under the supervision of instructors and team members, along with  
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8 persons with mental illnesses (Roy et al., 2019; Thekkumkara et al., 2020). As a transitional  
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10 approach, the team refers its clients based on their skills and interest to other vocational training  
11  
12 centers for upskilling and supported (vocational) education (train and place model) apart from  
13  
14 liaising with corporates and institutions for on the job training (place and train model) in  
15  
16 competitive employment spanning different roles such as data entry operator, office assistant, front  
17  
18 office management, and electrical repairing. The process includes liaising with different  
19  
20 employers, identifying potential persons for the employment, skill assessment and skill training,  
21  
22 and placement in a competitive employment. Further, the process also includes collecting  
23  
24 continuous evaluation and feedback from the clients and their employers to understand the  
25  
26 progress and challenges (Harish et al., 2020; Jagannathan et al., 2020). There were only few studies  
27  
28 discussing the effectiveness of supported employment approach for persons with Intellectual  
29  
30 disability (ID). In this paper the authors conducted a retrospective file review highlighting the  
31  
32 process of supported employment approach adapted for persons with ID. This retrospective file  
33  
34 review was approved by the Institute Ethics Committee of NIMHANS Bengaluru, India, for the  
35  
36 purpose of publication in a scientific journal.

## **METHODOLOGY:**

### **Case 1**

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39 Mr. A, was a 29-year-old male, with mild ID [score of 50 as per Vineland Social Maturity  
40  
41 Scale(VSMS) and Binet Kamat Test (BKT)] and Complex Partial Seizure(CPS), from urban  
42  
43 Bangalore. He belonged to the middle socio-economic status as per Kuppuswamy socio economic  
44  
45 scale(Sharma, 2017) and had completed his graduation in (B.Sc.) Animation. He was referred to  
46  
47 PRS for vocational skill training and supported employment by the treating team of neurology  
48  
49 after managing CPS. Mr. A stayed in Bangalore with his parents; his elder sister was married and  
50  
51 lived abroad. His mother, who actively participated in the treatment and rehabilitation needs of the  
52  
53 client, was the primary care-giver for the client. However, his father's involvement was minimal,  
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55 and though he was critical towards the client for not being financially independent. Mr. A's father  
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57 had his independent business in which he attempted to include Mr. A. However, due to the lack of  
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59 interest shown by Mr. A and inability of the father to provide adequate on-the-job training, this  
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4 plan did not succeed. Mr. A had attended numerous BPO based job interviews without success –  
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6 the major issue reported was inadequate competency in necessary job specific skills. This resulted  
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8 in reduced self-esteem and increased A’s anxiety about employment. He had good communication  
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10 skills and maintained cordial interpersonal relations with others. The multidisciplinary team in  
11  
12 PRS evaluated the client and planned rehabilitation goals by discussing with client and family. The  
13  
14 supported employment goals were,

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16 1) To conduct vocational assessment 2) To provide skill training and upskilling. 3) To facilitate  
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18 job placement, 4) To provide follow-up services, 5) to work with family to facilitate supported  
19  
20 employment.

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22 **INTERVENTIONS:**

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25 **1) Vocational assessment**

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27 The client was assessed on his vocational potential using the Vocational Potential Assessment Tool  
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29 (VPA). VPA is a comprehensive tool to assess daily functioning, job related social and cognitive  
30  
31 skills, job readiness, family and client related information (Harish et al., 2020). The assessment  
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33 revealed that he was competent in areas of self-care, commuting to work alone, maintaining good  
34  
35 interpersonal relation with his supervisors and peers at the work place, and maintaining  
36  
37 professional boundaries. Patient had moderate disturbance in managing financial aspects, and  
38  
39 could do basic calculations only with the help of calculator. He found it difficult to comprehend  
40  
41 multiple instructions simultaneously and would repeated ask questions on how to do the work  
42  
43 which would annoy his employers. He would also make the mistakes at work due to his inability  
44  
45 to comprehend the work. As part of the vocational assessment, feedback about his potential was  
46  
47 provided to Mr A and his family. Mr A was still determined to work in a BPO setting. His family,  
48  
49 especially his father, had high expectations from him and wanted him to prove his ability to support  
50  
51 himself even without their help. This pushed Mr A to find a ‘favourable’ white collared job to  
52  
53 satisfy his expectations and their hopes. His strengths were persistence in applying for jobs a job,  
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55 readiness for skill training; his limitations were lack of understanding of his current capacity, high  
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57 expectations from self, and low self-esteem from repeated failure in maintaining a job.

58 **2) Skilling Training:**

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4 In order to achieve his aim to work in a BPO, the client was referred to a skill training center(NGO)  
5 located in Bangalore for engagement. He attended the training for a period of two months, during  
6 which the PRS team negotiated with the training center for reasonable accommodation in terms of  
7 single supervision, individual attention in training, and frequent breaks during training. Post  
8 completion of his training, the skill training center facilitated a few job interviews for the client in  
9 which he could not qualify due to inadequate computer skills. To help in reskilling, the client was  
10 asked to attend the computer section in PRS for training in using Microsoft excel, to help him in  
11 getting future jobs. Weekly feedback was collected from the instructor to understand A's progress  
12 in computer skilling. He was regular to the computer section, able to understand the instructions,  
13 required minimal supervision and, learnt spreadsheet management skills well.  
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### 23 **3) Job Placement**

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26 Even post reskilling, as Mr A was not very proficient with data entry or computers, the  
27 rehabilitation team liaised with the hospitality industry for a suitable job opportunity for the client  
28 in the area of front desk operations. The team negotiated for on-the-job training and hand holding  
29 support, single manager and reasonable accommodation in work-timings for Mr A. Discussion  
30 with the client and family about disclosure of clients ID for obtaining job placement with  
31 reasonable accommodation was conducted. Post consent of client and family for disclosure, Mr A  
32 attended the interview and secured the job as a person with disability . He qualified for the front  
33 desk job and his salary was fixed at ₹8000 per month. The client and his family were happy with  
34 the job. The nature of work involved attending to guests who arrived and guiding them to their  
35 rooms. The team was in regular contact with the manager of Mr A to understand his performance  
36 and challenges. The employers were happy with client's work and they reported that the client was  
37 regular to work, was able to complete his task and client had no interpersonal issues at the  
38 workplace. He was regular till March 2020 (4 months), after which the hotel had to temporarily  
39 close due to the COVID-19 pandemic and lockdown. The client was kept on the bench and assured  
40 of returning to his job after the pandemic. During this period, to keep him engaged, the PRS team  
41 suggested he enroll for an online course on Transmission Control Protocol (TCP) hosted on  
42 Coursera for further enhancement of skills, which he chose.  
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### 58 **4) Follow-up Services**

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4 UDID was processed for the client based on the disability assessment conducted by the clinical  
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6 psychology team of PRS. This helped him to get a bus pass which enabled him to travel within  
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8 100 km radius of Bangalore city and to his place of work. Regular tele-follow-ups were conducted  
9  
10 with the client and his family to check on his mental health and progress at work; due the pandemic,  
11  
12 tele-sessions also focused on helping him have a structure at home (via providing him an activity  
13  
14 schedule) and keep himself engaged.

#### 15 16 5) Work with Family:

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18 Both the parents were provided psychoeducation about the client's ID and his current capacity.  
19  
20 Though his father was not ready to accept the client's disability and his unique needs initially, he  
21  
22 seemed to accept the situation over time with psychoeducation and engagement. Sessions with him  
23  
24 about how his negative expressed emotions such as being hostile and critical could affects the  
25  
26 client's confidence levels and mental health was discussed. A's mother was overinvolved and  
27  
28 protective about Mr A; in the family sessions, she was suggested to aid the client in making his  
29  
30 own career decisions, instead of stopping him from working or making choices for him.

### 31 32 **OUTCOMES**

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34  
35 The hybrid supported employment approach helped to assess the client's vocational potential,  
36  
37 mirror his work capability to himself and his family, train him to be job ready, find a suitable job,  
38  
39 which the client continued for 4 months, placement, and upskill him. Intervention during the  
40  
41 pandemic helped to develop a proper schedule for the client, and reduce expressed emotions from  
42  
43 his father. Finding work helped the patient's father appreciate the patient more, and he expressed  
44  
45 that the patient was using his time gainfully. Client also reported that his self-confidence and  
46  
47 esteem improved after he was employed. The main challenge faced in this case was the outbreak  
48  
49 of pandemic which put the client on the bench at workplace. This long duration of work  
50  
51 interruption often caused anxiety in the client and his family about whether he would be gainfully  
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53 employed in the future.

### 54 55 **Case 2**

56  
57 Mr. S was a 21-year-old male, with mild ID (Intellectual Disability), educated up to 9<sup>th</sup> std. He  
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59 was referred to the PRS team for vocational training and placement. He belonged to the middle  
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4 socio economic status according to Kuppuswamy socio economic scale (Sharma, 2017). The client  
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6 lived with his parents in Bangalore. His elder sister was married and settled in Bangalore. His  
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8 primary care-giver was his mother, who actively participated in the rehabilitation process. The  
9  
10 multidisciplinary team of PRS evaluated the case and prepared the vocational rehabilitation plans  
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12 based on the client's needs. The needs reported by the client in assessment were to be independent,  
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14 engage in a meaningful employment, and experience better social inclusion. The goals planned  
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16 based on the client's needs were

- 17  
18 1) To conduct vocational Assessment, 2) To facilitate skill training, 3) To place him in a  
19  
20 suitable job, 4) to provide follow-up services

## 21 22 **INTERVENTIONS:**

### 23 24 1) **Vocational assessment**

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27 As a first step of vocational assessment (Harish et al., 2020) was conducted to understand the  
28  
29 vocational potential of the client. The assessment found that, the client had difficulty in sustaining  
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31 conversations, was unable to ignore environmental distractions, and had poor interpersonal  
32  
33 relationships. However, his strengths were that he had previous employment history as a data entry  
34  
35 operator and had the ability to follow the instructions. Client had worked in an NGO for a period  
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37 of 2 years and was paid a salary of ₹10,000/- for doing basic data entry and photocopying work.  
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39 After two years, as he was proficient in the job, the NGO suggested he look for competitive job  
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41 opportunities in the community, and vacate his position for other persons with disability who  
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43 needed skilling and training.

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48 Mr. S and his mother were briefed about his strengths and limitations and counseled about the job  
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50 opportunities that the S was able to perform. It was discussed that the client would be suitable for  
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52 simple backend manual jobs, which required less interpersonal interactions.

### 53 54 **Skill Training:**

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57 Mr. S was referred to a center for skill training to enable him to become job-ready. The training  
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59 was for six months and it was for a BPO based job and involved him learning the English language;

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4 feedback was collected from the trainers regarding the progress and challenges. As the mother of  
5 the client insisted that a data entry job would be suitable for her son, after successful completion  
6 of the course, the PRS team referred him to another center for training in data entry related skills.  
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### 10 **Job placement:**

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13 Post skill training, the team liaised with two organizations working in the space of BPO and data  
14 entry for job placement of the client. However the client was not successful in getting the job as  
15 the employers found him not suitably skilled for the job roles. Efforts were also made by the team  
16 to help him get his old job back as a data entry operator; however that was also not successful due  
17 to lack of vacancies.  
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24 Based on the feedback given by the employers that Mr S was not skilled enough to hold a BPO or  
25 a data entry job, the rehabilitation team networked with the hospitality industry for backend jobs.  
26 Mr. S attended a job interview, and was selected for a laundry assistant job. His job profile included  
27 folding the bed sheets after the laundry. The team discussed with the employers about providing  
28 reasonable accommodation at workplace including providing day-shift work, giving simple  
29 instructions and positive feedback for work done. Client's salary was ₹8000 per month. Feedback  
30 received from the employers was that he was regular to work and did his job well. He was regular  
31 till March 2020, after which the hotel had to close down in view of COVID-19 pandemic. The  
32 client was also kept on the bench and was assured of getting his job back after the pandemic.  
33 During this period, to keep him engaged, PRS provided him an activity schedule to follow at home  
34 and encouraged him to participate in the online PRS day-boarder activities.  
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### 44 **6) Follow-up Services**

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47 Regular tele-follow-ups via email were exchanged with the client and his mother to check on his  
48 mental health and progress at work; especially during the pandemic online tele-sessions were held  
49 to help him have a structure at home (via providing him an activity schedule) and keep himself  
50 engaged.  
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### 55 **OUTCOMES**

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58 As a result of the hybrid supported employment approach, the client's job-related skills improved;  
59 he started attending work regularly, **sustained his job for 4 months, until the restrictions due to**  
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4 **COVID 19 pandemic**, he was able to have a sense of independence and procure things with his  
5 own money , and it also improved the self-esteem and quality of life.  
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## 8 **DISCUSSION**

10 Employment is a critical felt need of persons and families of persons with various  
11 disabilities including developmental disability (Waghmare et al., 2016). The Rights of Persons  
12 With Disabilities Act(RPWD), a right based legislation of 2016 and other legislations emphasize  
13 the need for ensuring reservation, skill training and employment for persons with developmental  
14 disabilities (Minsitry of Law and Justice, 2016), In addition, as per the RPWD out of 4% of  
15 reservation for employment 1% is exclusively allocated for persons with various mental health  
16 spectrum conditions – including persons with developmental disorders – and those who have  
17 multiple disabilities. Further, there are private entrepreneurs who have also started adopting the  
18 concept of inclusion of persons with neurodiversity, including those with intellectual disability, in  
19 the workforce. In spite of these initiatives, the representation of persons with developmental  
20 disabilities in competitive employment is minimal (Khayat-zadeh-Mahani et al., 2020) .  
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23 There are different models established for persons with developmental disabilities such as  
24 day care/pre vocational training centres, sheltered workshop models (Roy et al., 2020); however,  
25 these models do not provide adequate opportunities for persons with developmental disabilities to  
26 engage in competitive employment, and often, do not offer ways of earning a living wage. The  
27 current hybrid model of supported employment approach included skilling clients to be job ready  
28 while not in active employment and facilitating job placements when they expressed readiness has  
29 shown success, and encouraged persons with ID to work in mainstream community settings. A  
30 similar hybrid model of ‘train and place ‘and ‘place and train’ as depicted in this paper has shown  
31 to be efficacious in providing vocational services to persons with severe mental illness in France  
32 and Quebec (De Pierrefeu & Charbonneau, 2014)  
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35 Studies reports that employment helps in changing the status of the persons with disabilities  
36 across various domains such as reduced financial burden, improvement of quality of life and self-  
37 esteem, enhanced standard of living, alleviation of stigma in the community and reduced emotional  
38 burden with greater individual autonomy (Jagannathan et al., 2020). In addition, studies also shown  
39 that meaningful employment is associated with improvement of a range of skills including  
40 cognitive abilities, social skills, interpersonal skills and community integration (Ravilla et al.,  
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4 2019; Srinivasan & Tirupati, 2005). The cases reported improvement in self-esteem, and  
5 qualitative life post supported employment intervention.  
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8 A multidisciplinary team is required for the assessment of vocational skills, skill training,  
9 and planning of vocational rehabilitation goals is essential during the process of supported  
10 employment (Jagannathan et al., 2020) as illustrated in the two cases described. Studies also  
11 reports that an active role by the mental health professionals and integration of mental health  
12 services in the work places would enhance the quality of work and job retention in supported  
13 employment (Higginbotham et al., 2010). Collaboration and networking with potential employers  
14 and NGOs another important aspect in the process of supported employment for persons with  
15 developmental disabilities (Jagannathan et al., 2020). The role of various NGOs in skill training  
16 for persons with disabilities were recorded in India (Roy et al., 2020)and in the above illustrated  
17 cases, NGOs played a vital role in skill training and placement.  
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21 Follow-up services form an important part of helping the client sustain the employment.  
22 Concurrent feedback collected by the multidisciplinary team to understand the challenges and  
23 progress of the client in the work place and tele-follow-up sessions helped in both the clients  
24 maintaining their job and performing well till the advent of the pandemic. The principles of  
25 supported employment models discuss about the role of continuous support in sustaining  
26 employment (Drake et al., 2012). Further, the team has negotiated for reasonable accommodation  
27 with the employers so that the work environment could be conducive for the clients. Studies  
28 discuss about the reasonable accommodation in the work places and its important(Rangarajan et  
29 al., n.d.)  
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33 The main challenge was the advent of the COVID-19 pandemic which shifted both the  
34 clients to the bench in their workplace. The case studies depict the value of a hybrid supported  
35 employment approach for persons with developmental disabilities in overcoming unexpected  
36 changes in employment status. Engaging the clients at home and managing their anxiety about  
37 getting back to work post the pandemic was important in maintaining their mental health. However  
38 care needs to be taken in generalizing this model outside of NIMHANS, where mental health  
39 professionals are fewer in number and multidisciplinary teams for providing vocational  
40 rehabilitation are a luxury. In such a scenario, it is important to advocate for inclusion of this hybrid  
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4 model as part of the Taluk or District Mental Health Programme (TMHP/DMHP) where the  
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6 psychiatric social workers can be engaged in providing this service on at least one day in a week  
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8 of their schedule.  
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11 A major limitation of this model is that it is resource intensive as it requires  
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13 multidisciplinary team approach and requires active liaison between client and the employers. This  
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15 may be available only in a few tertiary care centres and not in the community. It was also observed  
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17 that it was effective because the severity of disability in both cases was mild-moderate. Vocational  
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19 rehabilitation of clients with severe disability may require a different model itself which needs to  
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21 be developed and tested. However, the strength of this paper is that it is one of the first to depict  
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23 the effectiveness of Hybrid Supported Employment model for persons with IDD which could be a  
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25 model to implement by other mental health professionals in the field.  
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## 32 33 **CONCLUSION**

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35 The cases demonstrated the effectiveness of a hybrid model of employment for persons with IDD.  
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37 The model helped in identifying the interests, skilling, upgrading the job related skills, find a  
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39 suitable employment and retention of employment for clients with developmental disabilities. The  
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41 findings also suggest that, the model could help in attaining financial independence and enhance  
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43 the self-esteem of the clients.  
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50 **Financial support and sponsorship:** Nil.  
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55 **Conflicts of interest:** There are no conflicts of interest.  
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**RESPONSE TO REVIEWERS**

Sl No	Reviewers comments	Current status	Section	Remarks
<i>We agree with all the suggestions and track changes made. Thank you for taking the effort to make our manuscript read well. The changes were highlighted</i>				
<b>Reviewer 1</b>				
1	Authors may include the information on how long both the cases retained their employment.	Case 1: "which the client continued for 4 months" Case 2: "sustained his job for 4 months, until the restrictions due to COVID 19 pandemic".	The information has added in case 1 & 2: outcome	Suggestion accepted
2	The introduction may be concised	Introduction has modified	Introduction	Suggestion accepted
3	Conclusion: The whole text is repeated elsewhere in the article. It will be ideal to conclude in context with the cases discussed.	Conclusion paragraph has modified "The cases demonstrated the effectiveness of a hybrid model of employment for persons with IDD. The model helped in identifying the interests, skilling, upgrading the job related skills, find a suitable employment and retention of employment for clients with developmental disabilities. The findings also suggest that, the model could help in attaining financial independence and enhance the self-esteem of the clients"	Conclusion	Suggestion accepted
<b>Reviewer 2</b>				
1	The aim is clear the methodology is clear (albeit no explicit mention of the limitations)	The limitation of the study has added "A major limitation of this model is that it is resource intensive as it requires multidisciplinary team approach and requires active liaison between client and	Discussion	Suggestion accepted

		<p>the employers. This may be available only in a few tertiary care centres and not in the community. It was also observed that it was effective because the severity of disability in both cases was mild-moderate. Vocational rehabilitation of clients with severe disability may require a different model itself which needs to be developed and tested. However, the strength of this paper is that it is one of the first to depict the effectiveness of Hybrid Supported Employment model for persons with IDD which could be a model to implement by other mental health professionals in the field.”</p>		
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