Effects of Social Games as Therapeutic Tool on Psychological Well-Being among Physically Disabled Horticulture Trainees: Person-centered Therapeutic Approach

Abstract
Background: Horticulture therapy has been used to promote physical health, mental health, and psychological well-being where trained professional person could be a medium through which certain clinically defined goal can be achieved. Aim: The aim was to study the effects of social games as therapeutic tool based on person-centered approach on psychological well-being among physically disabled horticulture trainees. Settings and Design: One-group pretest–posttest design was done. Self-prepared psychological well-being checklist was used. Social games as therapeutic tool was done based on person-centered approach by Carl Roger. Subject and Methods: The sample consisted of thirty unmarried mild-to-moderate physically disabled horticulture trainees at Horticulture Centre, Bangalore city, India. Participants were in the age range of 16–30 years, from low socioeconomic status, hailing from rural background, and educated between VI and XII Std/level were selected for the study. Statistical Analysis Used: t-test was done. Results: The present study found a significant difference in the scores of psychological well-being checklist after intervention among physically disabled horticulture trainees. Postintervention results revealed improved reciprocal interaction, positive thinking, motivation, regularity for the horticulture course, and reduced anxiety. Conclusions: It can be concluded that social games-based person-centered therapeutic tool on psychological well-being among physically disabled horticulture trainees is effective.

Keywords: Horticulture, person-centered therapy, physically disabled person, social games

Introduction
Physical disability is considered as burden to the person and family. In general, society believes that people with physical disability need attention are not healthy and strong enough compared to normal people. Physically disabled people are viewed less favorably than are the nondisabled.[1] These people are often found to be lonely and suspicious of others.[2] It is linked with feeling of inferiority, shame, guilt, bitterness, envy, self-pity, immaturity, primitive fixations, and stereotyped activities.[3] Some of disabled people see all of their problems as stemming from their handicaps. They hold the conviction that, if not for their disabilities, all of difficulties would disappear.[4]

Review of literature shows that various therapeutic interventions are helpful among physically disabled people (children and adults) for improving their physical and psychological well-being. Play therapy is one of them where the therapist develops a friendly relationship and good rapport with clients and must show acceptance of the clients. Bruner is one of the first researchers to explore the use of nondirective play techniques with adults.[5] She described a group play session with five women and one man in an intensive inpatient unit that seems to combine the client-centered approach with counselor-led discussion included for the sake of processing. She reported that play happens in a group setting where the individual play and the group interaction provide both the picture of the individual’s inner scene and the possibility for change as enacted with others. Two case studies[6] presented based on person-centered play therapy with developmentally delayed adults. These adults, who were cognitively and verbally incapable of communicating at the level necessary for traditional therapeutic strategies, were able to derive successful interactions.

Babita Gupta
Medihope Hospitals and Research Centre Private Limited, Bengaluru, Karnataka, India

Address for correspondence:
Dr. Babita Gupta,
#302, Chaitanya Paradise-2, 6th ‘F’ Cross, Kaggadasapura, CV Raman Nagar PO, Bengaluru, Karnataka, India.
E-mail: babitaa.gupta@gmail.com

How to cite this article: Gupta B. Effects of social games as therapeutic tool on psychological well-being among physically disabled horticulture trainees: Person-centered therapeutic approach. Indian J Soc Psychiatry 2020;36:54-9.

Received: 01-09-2018, Revised: 09-06-2019, Accepted: 19-09-2019, Web Publication: 17-03-2020

Access this article online
Website: www.indjsp.org
DOI: 10.4103/ijsp.ijsp_68_18
Quick Response Code: 

© 2020 Indian Journal of Social Psychiatry | Published by Wolters Kluwer - Medknow
outcomes from play therapy. Behaviors that were reduced included acting out, self-injury, withdrawal, disruptive outbreaks, and temper tantrums.

In addition to play therapy, horticulture therapy also has been found effective physical disability. From many years, horticulture has been used as therapy or as an adjunct to therapy in the treatment of various disorders and illnesses such as dementia, learning disability, and autism psychi atric patients, older people, and minority ethnic communities because it has cognitive, psychological, social, and physical effects. In Indian setting, there was an improvement in social functioning among ten male schizophrenic patients who were taking part in horticultural program. On the other hand, horticulture therapy program had been evaluated for children with cerebral palsy. Researcher did not find statistically significant differences between the control group and the group receiving horticultural therapy. They concluded that horticulture program which was adjunctive in nature, of short duration, and applied by a volunteer teacher on part time basis may not make a significant improvement. They recommended more research using professional staff in close collaboration with a trained therapist in various groups at different levels of disability and different ages. Review of literature showed contradictory results. It has been found that trainees (physically disabled person) who were attending horticulture program at horticulture center were showing minimal interest to learn horticulture activities, not taking initiative in the activities, anxious, irregular, and very minimal reciprocal interaction among group members. Therefore, a tailor-made intervention program was design for trainees based on person-centered approach because it was felt that there is a powerful force within each individual that strives continuously for self-actualization. This is a drive toward maturity, independence, and self-direction. Thus, the present study was an effort in this direction.

Subject and Methods

The aim was to study the effects of social games as therapeutic tool based on person-centered approach on psychological well-being among physically disabled horticulture trainees.

The hypothesis was carried out that there was a positive change after social games as therapeutic tool based on person-centered approach on psychological well-being among physically disabled horticulture trainees.

Sample

Based on result of well-being checklist, sample consisted of thirty unmarried mild-to-moderate physically disabled [locomotor disability [5 participants], spinal cord disability [5 participants], polio [8 participants], fits under control with speech and language problem [2 participants], amputation [5 participants], and fits under control with partially blind [5 participants]] men undergoing residential horticulture course at Horticulture Centre, Bangalore in India. Participants were in the age range of 16–30 years. They were from low socioeconomic status, hailing from rural background, and educated between VI and XII Std/level.

Clinical characteristics of participants

Understanding ability of the participant was found to be within normal limit during case history session. Clinically, the participants were not having hallucination, delusion, and pathological retardation in performing daily routine activities or task. Their speech/talk, orientation about time, place, and date were found adequate. All participants were having insight about their issues such as sadness.

Design used

A single-group pretest–posttest design was used for study.

Tool

Self-prepared psychological well-being checklist consisted of twenty items was used, which covers statement related to affect (tension, suicidal ideation, sadness, and fear), cognition (beliefs and problem-solving), motivation (low energy and motivation), and vocational placement. The checklist was based on the Ryff Scales of Psychological Well-Being. The language was modified to make target group to understand the same. The guideline for preparing the items was followed, such as the items had to be self-descriptive, clarity, and applicable to both the genders of varying age.

Each item was assigned 2, 1, and 0 for always, sometimes, and never, respectively. High scores reveal low psychological well-being and low scores show high psychological well-being.

Intervention technique

Social games as therapeutic tool was used based on person-centered approach. The conceptual framework of therapy is provided in Table 1. Roger stated that the client determines the general direction of therapy, whereas the therapist seeks to increase the client’s insightful self-understanding informal through clarifying questions. The therapist was open to client expression without bias, was nonjudgmental and had empathy during the sessions. These traits are central part of therapy.

Scoring and statistical analysis

Response (as described in section tool) of checklist items was summed as raw score of each participant. Adding the raw scores of all participants, group raw score was calculated for pretest as well as posttest. Difference method (single-group method) was used for t-test.
They were asked to complete the object. Discussion took place after the completion of the task by groups.

During Phase 1 therapy sessions (3–13), some of observations are described below:

Participant AA: “I am _um, don’t know”
Participant BB: “(long pause) pass”
Participant CD: “Why should I tell to you?”
(High tone, shouting manner)
Participant RP: “I am happy”

Therapist: “Well it could be anything positive or good in you which you feel. Whatever coming in your mind express them. Don’t have worry about righteous. Nothing is right or wrong”

Participant AA: “I am (long pause) good at cutting vegetables”
Participant BB: “I am sad”
Participant CD: “I am angry most of the time.”

The therapist responded to all participants with empathically and receptively expressed with eye-to-eye contact and facial expression and attentively led to participants who feel comfortable and free from any judgments. As the therapy program preceded, participants started showing interest, taking initiative, improving eye-to-eye contact, interaction and listening skill, and active participation in the therapy session.

During this phase, all the participants tried to explore himself, therapist, and social therapeutic environment. Rapport and trust building between therapist and participants had brought favorable changes.

Phase 2

• Game 1: Situational cards – Thirty trainees were divided into three small groups of tens. A situational flash card was given among a group, and the group was asked to discuss it among themselves. Subsequently, one person from each group shared their group’s opinion in front of all participants.

The first group was given green flash card with social situation, i.e., one trainee gets down as he reached his bus stops. He left his wallet on the bus floor. The bus has moved off again. The trainee nearest the wallet picks it up (the wallet has Rs. 3000/- with ATM card).

The second group was given white flash card with social situation, i.e., a very old lady, bent, and shaky and finding it hard to keep her balance as the bus goes along. Does anything happen?

The third group was given orange flash card with social situation, i.e., a person met an accident on the road. He was badly injured.
Likewise, there were many games dealing and coping with emotions, time management, and value played by trainees. The role play games in phase 2 were based on complex real life social situations. These games were played among large group of trainees.

During Phase 2 therapy sessions (14–39), some of observations are described below:

Participants were more relaxed and calm. They were more aware about themselves and surroundings. In role play sessions, they showed alternative way, divergent thinking pattern, and acceptance of self and others. There was remarkable change in reciprocal interaction among peer group. Their perception of self-esteem improved.

All participants were happy and enthusiastic to play games in group. Some of the observations are described below:

Participant PP: “We should help that person but how? What are all of you say?”

Participant MN: “No.”

Participant OP: “Yes, “How badly injured,” I feel like to hit.”

Participant PQ to participant MN: “If we are in same place. What will happen to us. We are handicapped also. I will be hospitalized. Financial problem more. My parents will be sad.”

Therapist observations – Participants looked anxious, took it personally and angry

Therapist: Nondirective and nonjudgmental attitude and approach created greater expressive and favorable environment to the all the participants. Clue had been given to participants, but no suggestion and advice had been given to them.

Participant PP: “We should help that person. Tell ….tell…um”

Participant MN: “First we have to call the ambulance and police. What are all of you say?”

Participant PP: “Have patience my friend”

Participant OP: “Ambulance phone number ……don’t know”

Participant PQ: “103, call now” till ambulance comes what to do “he is crying, blood is gushing out”

Participant PP: “Friend you are right but what to do now” I do not know about all. Ok (long pause) can we find any doctor?”

Therapist observations – Participants revealed healthy communication among them, accepting others views, generating ideas.

Feedback took from the staff of the horticulture center in the last two sessions. They reported that all participants are more organized (they started planning for their activities), increased self-awareness, motivated, more interactive in horticulture class, improved problem-solving skill, and less anxious and fearful.

Results

Results are shown in Table 3

Table 3 showed significant differences between the scores of pre- and postintervention of psychological well-being

| Sessions | Description | Session details |
|----------|-------------|-----------------|
| Interactions | Rapport building | Rapport building, interactions with individuals explaining objective and rationale of program |
| Session 1-2 | Preassessment | Preassessment was done in group |
| Session 3-13 | Phase 1: Simple and Interactive social games among small group of trainees | Participants were divided in small group and social games were played to address reluctance of participants toward horticulture course/program, improper addressing to peers (use of nonsocial words and high tone), poor eye-to-eye contact, passive attitude, anxious body posture, etc., Major changes or improvement was observed across the sessions |
| Session 14-39 | Phase 2: Complex, role play of real-life social situation games among large group of trainees | Expressive and favorable environment created by therapist helped participant to become more relaxed, calm, and aware about themselves and surroundings. They showed alternative ways, divergent thinking pattern and acceptance of self and others. Horticultural trainers reported that participants are motivated and have improved communication and less anxiety and fearfulness |
| Session 40 | Postassessment | Post assessment was done in group |

Table 3: Results of psychological well-being checklist

| Description of psychological well-being checklist | Raw scores of all participants | Mean score | Mean<sub>2</sub> | SD<sub>2</sub> | SE<sub>mp</sub> | t |
|------------------------------------------------|---------------------------|-----------|---------------|-------------|---------------|---|
| Pretest                                      | 571                      | 19.03     | 5.83          | 4.34        | 0.79          | 7.36**         |
| Posttest                                     | 396                      | 13.20     |               |             |               |               |

**Significant at 0.01 level. df=29. SD=Standard deviation, SE=Standard error
Gupta: Social games as therapeutic tool on physically disabled

Discussion

Preassessment showed that all trainees were having low psychological well-being. Postintervention (social games as therapeutic tool based on person-centered approach) results showed a significant improvement in their psychological well-being. The therapeutic intervention led to openness, self-awareness, and feeling of acceptance among themselves. Therefore, trainees felt freedom without facing evaluation or pressure to change. The trainees were given the favorable therapeutic environment (using social games as therapeutic tool) to experience the personal growth and to learn about emotions and coping methods. Gradually trainees started to realize the power within themselves, to be an individual in his own right to think for them, to make their own choice and decision to become psychologically mature and their core belief “My life is worthless” changed into “I am valuable person for society.”

Intervention program also revealed that trainees were regular and punctual for the horticulture course, motivated, and taking initiative for horticulture activities. Reciprocal interaction among trainees had been improved. Trainees reported that they felt more energetic and happier. On psychological well-being checklist, they showed high self-esteem, security, less irritability, reduced sadness and suicidal ideation, and increased awareness. They reduced social anxiety and also reduced worry for job placement.

Many other studies[27‑29] revealed that physically disabled individuals have low psychological well-being, quality of life, and self-determination level. Extroverts and individuals with agreeable and open to experience characteristics have higher psychological well-being, whereas neurotic characteristics can decline psychological well-being among disabled individuals. In terms of intervention or psychotherapy, gaining an accurate and more thorough understanding of the psychological reality of a disabled person’s internal world may be a key to facilitating his or her self-esteem and optimal adaptive functioning. Groups that facilitate self-disclosure and emotional interactions among the members accomplish more meaningful results.[30] In addition to that, guided introspection training program among horticulture trainers (physically disabled and normal people) was found effective in improving self-awareness and self-esteeem. Trainers learned to accept one unconditionally and learned to love themselves regardless of what others feel about them.[31]

The major strength of the work was the intervention program which had been customized according to the need of the participants in group and the focus on the different aspects of psychological well-being such as cognition/thinking, self-acceptance, and goal among physically disabled person. This framework might useful for further researches in different disability groups. However, the tool used to assess psychological well-being was adaptation from the Ryff scale but had not been standardized on the larger sample.

Conclusions

It can be concluded that social games as therapeutic tool based on person-centered approach on psychological well-being among physically disabled horticulture trainees is significantly effective. The intervention program was limited to mild-to-moderate physical disability trainees and could expand to severe physical disability trainees and compare the results. The sample size was small in the study.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Donaldson J. Changing attitudes toward handicapped persons: A review and analysis of research. Except Child 1980;46:504‑14.
2. Abt LE. The psychology of physical handicapped: A statement of some principles. In: Noland RL., editor. Counseling Parents of the Ill and Handicapped. Springfield, IL: Charles C. Thomas; 1971.
3. Greenberg R. Psychiatric aspects of physical disability in children and adolescents. Adolescent Psychiatry. 1974;3:298‑307.
4. Yorke C. Some comments on the psychoanalytic treatment of patients with physical disabilities. Int J Psychoanal 1980;61:187‑93.
5. Bruner K. Group play therapy with adults. Arts Psychother 2000;27:333‑8.
6. Demanchick SP, Cochran NH, Cochran JL. Person‑centred play therapy for adults with developmental disabilities. Int J Play Ther 2003;12:47‑65.
7. Hoover RC. Healing gardens and Alzheimer’s disease. In: Francis M, Lindsey P, Rice JS, editors. The Healing Dimensions of People-Plant, Relations. UC Davis, CA: Centre for Design Research; 1994. p. 283‑99.
8. Beckwith ME, Glister SD. The paradise garden: A model garden design for those with Alzheimer’s disease. Activit Adapt Aging 1997;22:3‑16.
9. Smith LD, Aldous DE. Effect of therapeutic horticulture on the self-concept of the mildly intellectually disabled students. In: Francis M, Lindsey P, Rice JS, editors. The Healing Dimension of People-Plant Relations. US Davis, CA: Centre for Design Research; 1994. p. 215‑21.
10. Kaiser M. Alternative to therapy: Garden program. J Clin Child Psychol 1976;5:21‑4.
11. Cohen MJ, Werner P. Outdoor wandering parks for person with dementia: A survey of characteristic and use. Alzheimer Dis Assoc Disord 1999;13:109‑17.
12. Bhatt M. Occasional Paper. Gardening in Later Life. Brighton: University of Brighton; 2002.
13. Winterbottom D. Casitas, gardens of reclamation: the creation of culture/social spaces in the barrios of New York city. In: Sanford J, Connell BR, editors. People, Places and Public Policy. Edmond, Oklahoma: Environmental Design Research Association; 1998. p. 88-96.
14. Cimprich B. Development of an intervention to restore attention in cancer patients. Cancer Nurs 1993;16:83-92.
15. Herzog TR, Black AM, Fountain KA, Knotts DJ. Reflection and attentional recovery as distinctive benefits of restorative environments. J Environ Psychol 1997;17:165-70.
16. Waliczek TM, Mattson RH, Zajicek JM. Benefits of community gardening on quality-of-life issues. J Environ Hortic 1996;14:204.
17. Langer EJ, Rodin J. The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. J Pers Soc Psychol 1976;34:191-8.
18. Perrins-Margalis NM, Rugletic J, Schepisi NM, Stepanski HR, Walsh MA. The immediate effects of a group-based horticulture experience on the quality of the life of a person with chronic mental illness. Occup Ther Ment Health 2000;16:15-32.
19. Prema TP, Devarajaiah C, Gopinath PS. An attempt at Indianisation of psychiatric nursing. Nurs J India 1986;77:154-6.
20. Ackley D, Cole L. The effect of a horticulture therapy program on children with cerebral palsy. J Rehabil 1987;53:70-3.
21. Wichrowski M, Chambers NK, Ciccantelli LM. Stroke, spinal cord and physical disabilities and horticulture therapy practice. In: Simeson SP, Straus MC, editors. Horticulture as Therapy: Principles and Practice. New York: The Food Products Press the Haworth Press Inc.; 1998. p. 71-104.
22. Strauss D, Gabaldo M. Traumatic brain injury and horticulture therapy practice. In: Simeson SP, Straus MC, editors. Horticulture as Therapy: Principles and Practice. New York: The Food Products Press the Haworth Press Inc.; 1998. p. 105-29.
23. Simeson SP and Straus MC (Editors). Horticulture as Therapy: Principles and Practice. New York: The Food Products Press/ the Haworth Press Inc.; 1998.
24. Rogers CR. Measuring Personality Adjustment in Children Nine to Thirteen Years of Age. New York: Bureau of Publications, Teachers College, Columbia University; 1931.
25. Guerney L. Child-centered play therapy. Int J Play Ther 2001;10:13-31.
26. Nordling W, Cochran NH. Child-Centered Play Therapy, Savannah, GA: Workshop Series Sponsored by the National Institute for Relationship Enhancement (NIRE); GA; 1999.
27. Kanwal H, Mustafa N. Psychological well-being and quality of life among physically disabled and normal employees. Pak Armed Forces Med J 2016;66:710-14.
28. Shami S. Gender Differences in Self Determination and Quality of Life of Physically Disabled Individuals. Lahore: University of the Punjab; 2008.
29. Yousuf S. The Relationship Between big Five Personality Domains and Psychological Well Being among Disabled. Lahore: University of the Punjab; 2007.
30. Oliveira RA, Milliner EK, Page R. Psychotherapy with physically disabled patients. Am J Psychother 2004;58:430-41.
31. Gupta B. Guided introspection training program among horticulture trainers. Behav Sci 2016;17:77-80.