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# EFFECT OF PEER-SUPPORTED GROUP COUNSELLING ON MOTIVATION AND ADHERENCE TO WEIGHT REDUCTION STRATEGIES

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## ABSTRACT

**Background:** Obesity is a global public health concern that requires sustainable lifestyle modification strategies. Motivation and adherence are key determinants of weight-loss success, yet many individuals struggle to maintain behavior change. **Objectives:** To assess the effectiveness of a single peer-supported group counselling session on motivation and adherence to diet and physical activity among obese adults in selected community areas of Sri Ganga Nagar, Rajasthan. **Methods:** A quasi-experimental pre–post control group design was employed among 60 obese adults (BMI ≥30 kg/m²) recruited by purposive sampling. Participants were equally divided into intervention and control groups. The intervention group received one 90-minute peer-supported Counselling session focusing on obesity education, goal-setting, peer sharing, and self-monitoring' planning. Motivation was measured using the Weight Loss Motivation Questionnaire (WLMQ), and adherence was recorded through self-reported diet and activity logs at baseline and one-week follow-up. **Results:** The intervention group showed a significant increase in mean motivation scores (58.7 ± 9.8 to 71.6 ± 8.9; $p<0.001$) compared with a non-significant change in the control group (57.4 ± 9.3 to 59.5 ± 9.0; $p=0.23$). Diet adherence improved by +25.9% and physical activity adherence by +23.9% in the intervention group versus +9.2% and +9.0% respectively in controls ($p<0.001$ for both comparisons). **Conclusion:** A single peer-supported group counselling session significantly improved motivation and short-term adherence to weight-reduction strategies among obese adults. Incorporating brief peer-supported interventions into community health programs may be an effective, scalable approach to initiating lifestyle modification for obesity prevention and management.

**KEYWORDS:** *Obesity, Peer Support, Group Counselling, Motivation, Adherence, Lifestyle Modification, Community Health.*

## INTRODUCTION

Obesity has reached alarming levels globally, with more than 650 million adults classified as obese in 2016. Its rise is closely correlated with increased risks of chronic conditions such as type 2 diabetes, cardiovascular diseases, certain cancers, and diminished quality of life.[1] Despite numerous interventions, achieving sustainable weight loss remains challenging due to issues like poor adherence and low motivation. Studies indicate that while a 5% reduction in body weight can yield substantial health benefits, long-term adherence to lifestyle changes is often inadequate.[2]

Peer-supported group counselling is emerging as a promising, cost-effective strategy in obesity management. Through shared experiences, empathy, accountability, and social reinforcement, peer groups may improve both motivation and adherence. Reviews have underscored the positive short-term impact of such interventions on weight loss and behavior change.[3] For instance, in the *PROMISE* trial, integration of peer coaches into primary care settings led to better patient engagement and improved outcomes compared to self-directed treatments.[4]

Moreover, the concept of motivation plays a vital role in sustained behavior change. Self-determination theory distinguishes between intrinsic and extrinsic motivation and suggests that interventions fostering autonomy and competence result in better long-term adherence.[5] Systematic analyses reveal that programs incorporating social support and supervision report higher retention than those focused solely on exercise or diet without peer involvement.[6] Given the scarcity of data from rural and semi-urban Indian contexts—especially in community settings like Sri Ganga Nagar—there is a pressing need

to evaluate the effectiveness of peer-supported group counselling in enhancing motivation and adherence among obese adults. This study addresses this gap by assessing whether a structured peer-led intervention can significantly improve participants' motivation and compliance with weight reduction strategies compared to standard care.

## MATERIALS AND METHODS

### Study Design and Setting

This quasi-experimental pre–post control group study was conducted in community areas of Sri Ganga Nagar, Rajasthan, to evaluate the effect of a single peer-supported group Counselling session on motivation and adherence to weight reduction strategies.

### Sample and Sampling Technique

A total of 60 obese adults (BMI ≥30 kg/m²) aged 20–50 years were recruited through purposive sampling based on inclusion and exclusion criteria. Participants were randomly allocated into two groups: intervention group (n=30) who received peer-supported group Counselling, and control group (n=30) who received routine verbal advice on weight management. Pregnant or lactating women and individuals with severe comorbid conditions were excluded from the study. Written informed consent was obtained from all participants prior to data collection.

### Intervention

The intervention consisted of a single, structured 90-minute peer-supported group Counselling session facilitated by a trained counselor. The session included an interactive health talk on obesity risks, diet and physical activity recommendations, peer sharing of challenges and solutions, goal-setting exercises, and preparation of a one-week action plan using self-monitoring diet and activity logs. The control group did not receive this structured session but were given routine advice available in the community.

### Outcome Measures and Data Collection

Motivation was assessed using the Weight Loss Motivation Questionnaire (WLMQ) immediately before and one week after the intervention. Adherence to diet and physical activity was recorded through participant-maintained logs over the follow-up week. Baseline demographic details, weight, height, and waist circumference were measured using standardized techniques before the session.

### Data Analysis and Ethical Considerations

Data were coded and analyzed using SPSS version 25. Descriptive statistics such as mean, standard deviation, frequencies, and percentages were calculated. Paired t-tests were used to compare pre- and post-session motivation scores within groups, and independent t-tests were used to compare mean differences between groups. A p-value <0.05 was considered statistically significant. Ethical clearance was obtained from the Institutional Ethics Committee, and confidentiality of data was maintained throughout the study.

## RESULT

**Table 1: Frequency and Percentage Distribution of Demographic Characteristics of Participants (N = 60).**

| Demographic Variable | Categories | Intervention (n=30) | Control (n=30) |
|---|---|---|---|
| Age Group (years) | ≤35 | 12 (40.0%) | 10 (33.3%) |
| | >35 | 18 (60.0%) | 20 (66.7%) |
| Gender | Male | 14 (46.7%) | 13 (43.3%) |
| | Female | 16 (53.3%) | 17 (56.7%) |
| Education | Primary | 6 (20.0%) | 5 (16.7%) |
| | Secondary | 12 (40.0%) | 14 (46.7%) |
| | Graduate & Above | 12 (40.0%) | 11 (36.7%) |
| Occupation | Homemaker | 9 (30.0%) | 7 (23.3%) |
| | Employed | 15 (50.0%) | 17 (56.7%) |
| | Others (Retired/Student) | 6 (20.0%) | 6 (20.0%) |
| Monthly Family Income | <20,000 INR | 11 (36.7%) | 9 (30.0%) |
| | ≥20,000 INR | 19 (63.3%) | 21 (70.0%) |
| BMI Category (kg/m²) | 30–34.9 | 25 (83.3%) | 23 (76.7%) |
| | ≥35 | 5 (16.7%) | 7 (23.3%) |
| Previous Weight Loss Attempts | Yes | 20 (66.7%) | 13 (43.3%) |
| | No | 10 (33.3%) | 17 (56.7%) |

This table depicts the baseline demographic characteristics of the participants. The majority (63.3%) were above 35 years of age, 55% were females, and 43.3% had completed secondary education. More than half (53.3%) were employed, and 66.7% had a monthly family income above □ 20,000. Most participants (80%) were in the BMI range of 30–34.9 kg/m², and 55% reported previous weight loss attempts. Both groups were comparable across all demographic characteristics ($p > 0.05$).

**Table 2: Comparison of Pre- and Post-Intervention Motivation Scores, Diet Adherence, and Activity Adherence (N = 60)**

| Outcome Measure | Group | Pre-Test Mean ± SD | Post-Test Mean ± SD | Mean Difference | t-value | p-value |
|---|---|---|---|---|---|---|
| Motivation Score | Intervention (n=30) | 58.7 ± 9.8 | 71.6 ± 8.9 | +12.9 | 6.21 | <0.001* |
| | Control (n=30) | 57.4 ± 9.3 | 59.5 ± 9.0 | +2.1 | 1.22 | 0.23 |
| Diet Adherence (%) | Intervention (n=30) | 52.3 ± 12.2 | 78.2 ± 10.4 | +25.9 | 5.42 | <0.001* |
| | Control (n=30) | 50.6 ± 11.7 | 59.8 ± 12.6 | +9.2 | 1.76 | 0.086 |
| Activity Adherence (%) | Intervention (n=30) | 48.7 ± 13.1 | 72.6 ± 11.5 | +23.9 | 4.98 | <0.001* |
| | Control (n=30) | 47.3 ± 12.8 | 56.3 ± 10.2 | +9.0 | 1.69 | 0.094 |

This table provides a combined view of outcomes after the intervention. The intervention group showed a significant improvement in motivation scores ($p < 0.001$) compared to the control group. In addition, both diet adherence and physical activity adherence after one week were markedly higher in the intervention group compared to controls ($p < 0.001$). These results suggest that peer-supported group Counselling not only enhances motivation but also positively influences short-term behavioral compliance.

**Table 3: Association of Demographic Variables with Post-Intervention Motivation and Adherence (N=60).**

| Demographic Variable | $\chi^2$-value | p-value |
|---|---|---|
| Age Group | 1.82 | 0.176 |
| | | |
| Gender | 4.12 | 0.042* |
| | | |
| Education | 6.28 | 0.044* |
| | | |
| | | |
| Occupation | 0.88 | 0.642 |
| | | |
| Monthly Income | 3.92 | 0.048* |
| | | |
| BMI Category | 2.33 | 0.127 |
| | | |
| Previous Weight Loss Attempts | 5.17 | 0.023* |

This table shows the association between seven demographic variables (age, gender, education, occupation, income, BMI, and past weight loss attempts) with combined outcome of high post-intervention motivation/adherence. Statistically significant associations were found with gender (p=0.042), education level (p=0.044), income (p=0.048), and history of previous weight loss attempts (p=0.023), suggesting that females, participants with higher education, higher income, and those who had tried weight loss earlier were more likely to be motivated and adherent after the Counselling session.

## DISCUSSION

The present study was conducted to evaluate the effect of a single peer-supported group Counselling session on motivation and adherence to weight reduction strategies among obese adults in selected community areas of Sri Ganga Nagar. The present study showed that there was a statistically significant improvement in motivation scores, diet adherence, and physical activity adherence in the intervention group as compared to the control group, indicating that even a single structured peer-supported session can influence short-term behavior change.

Our findings are consistent with the results of Chen et al. (2021), who reported that peer support interventions significantly improved weight loss outcomes and reduced BMI among overweight participants in a community-based program.[7] This supports the assumption that peer interactions and shared experiences play a vital role in initiating lifestyle modifications. Another study supported this finding by Ufholz (2020), who conducted a systematic review of peer-support groups for weight loss and concluded that structured group interventions with goal setting and accountability mechanisms yield better motivation and adherence compared to self-directed efforts.[3]

The present study showed that mean motivation scores increased by +12.9 points after the intervention. This is similar to the findings of Pietrabissa et al. (2018), who emphasized that group motivation-focused interventions, particularly those including cognitive and behavioral components, are effective in improving readiness for weight loss and treatment adherence.[8] Dicker et al. (2021) also supported this observation, stating that structured goal setting combined with peer feedback significantly enhances intrinsic motivation among obese adults.[9]

In terms of dietary and physical activity adherence, our study demonstrated that there was an improvement of +25.9% in diet adherence and +23.9% in physical activity adherence in the intervention group, which was statistically significant. These results are in line with Wang et al. (2024), who reported that adherence to weight-loss interventions is enhanced when participants receive social reinforcement and weekly follow-ups.[10] Another study supported this by Jøranli et al. (2023), who highlighted that a sense of belonging and shared responsibility within a group setting was a major contributor to sustained behavioral change among participants with morbid obesity.[11]

Group Counselling as a mode of intervention has several advantages over individual Counselling. The present study results were supported by Bolognese et al. (2020), who found that group nutritional Counselling produced comparable, if not better, improvements in dietary behavior and mental well-being compared to individualized prescriptions.[12] Männistö et al. (2025) also found that adding even minimal group contact sessions to a digital intervention improved adherence and participant engagement significantly.[13]

The present study showed that females had slightly higher adherence rates than males, which was statistically significant. Similar findings were reported by Sreedevi et al. (2017) in their study on yoga and peer support interventions among women with diabetes, where women exhibited higher participation and adherence rates.[14] This may be due to women being more receptive to social support systems and community-based interventions. Zhao et al. (2025) further supported this observation by demonstrating that group-based cognitive behavioral therapy improved group cohesion and active participation, especially among female participants.[15]

Another important observation from the present study was the positive association between education level and motivation scores. This is consistent with the findings of Trujillo-Garrido et al. (2022), who reported that individuals with higher educational attainment showed greater adherence to dietary interventions, possibly due to better health literacy.[16] Wittleder et al. (2025) also found that peer coaching interventions were more effective among educated participants, as they could better comprehend and apply health-related information.[17]

The present study also indicated that participants with previous weight-loss attempts were more motivated and adherent compared to those without prior experience. This finding is supported by Clinical Trial NCT00120029, which concluded that individuals with prior weight management experience respond better to structured behavioral programs due to familiarity with the process and existing motivation.[18] Similar findings were reported by Gorin et al. (2004), who stated that medical triggers and previous exposure to weight-loss programs were associated with improved engagement and weight loss outcomes.[19] From a theoretical perspective, the present study findings resonate with self-determination theory as explained by Teixeira et al. (2012), which postulates that autonomy, competence, and relatedness are crucial determinants of intrinsic motivation.[20] The peer-supported Counselling session likely enhanced autonomy by encouraging self-selected goals, competence through knowledge acquisition, and relatedness via peer interaction. Ufholz (2020) also emphasized that group dynamics and peer validation play a crucial role in sustaining motivation over time.[3] Our study further supports the idea that peer support acts as a low-cost, scalable public health strategy. Wittleder et al. (2021) demonstrated that peer coaching in primary care settings improved program adherence and patient engagement with minimal resource requirements.[17] Another study supported this by Paul-Ebhohimhen and Avenell (2008), who reported that social incentives and peer networks significantly improve weight-loss maintenance.[21] These findings underscore the feasibility, scalability, and cost-effectiveness of integrating brief peer-supported Counselling into community health programs to enhance motivation and promote sustainable behavior change in obesity prevention and management.

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