

Assessment of The Weight Loss Challenge (WLC) Initiative For Semarang City Health Office Employees

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ABSTRACT

This study employed the CIPP (Context, Input, Process, Product) evaluation model to assess the implementation of the Weight Loss Challenge (WLC) program for overweight and obese employees at the Semarang City Health Office. Data were gathered through documentation, interviews, and observation in a descriptive, qualitative manner. The steps of data reduction, data display, and conclusion drawing were followed by data analysis. According to the evaluation's findings, management fully supported the program's initial design, which was based on the real needs of the workforce. However, several technical and structural issues prevented the main goal of significant weight loss among participants from being accomplished during implementation. The program made effective use of internal resources without needing extra funding, but it was severely limited by the lack of science-based guidelines and restricted access to gualified instructors. Although the program was only run once a week, manual monitoring and a lack of feedback utilization resulted in a low level of responsiveness to necessary modifications. The program effectively raised participant motivation and helped create a healthier lifestyle culture in the workplace, despite the fact that the goal of reaching the ideal body weight based on the Body Mass Index was not reached.

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AUTHORS' CONTRIBUTION

A. Conception and design of the study;

- B. Acquisition of data;
- C. Analysis and
- interpretation of data;
- D. Manuscript preparation;
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INTRODUCTION

Obesity is a condition characterised by the excessive accumulation of fat throughout the body's tissues, which can be assessed through a Body Mass Index (BMI) measurement of \geq 25.0 (Ernawati et al., 2024). According to a study published by The Lancet in 2022, more than 1 billion people worldwide are affected by obesity. The prevalence of obesity among adults globally has more than doubled since 1990, while the rates of obesity among children and adolescents (ages 5 to 19) have increased fourfold. Additionally, approximately 43% of adults worldwide are reported to be overweight (Phelps et al., 2024). The issue of obesity is not only prevalent in developed countries but also poses a serious challenge in developing nations such as Indonesia. Based on the 2023 Indonesian Health Survey, the national prevalence of obesity among individuals aged over 18 years increased from 21.8% in 2018 to



23.4% in 2023. The advancement of technology has influenced lifestyle changes, particularly in terms of mobility and increasingly convenient yet unhealthy eating patterns. These changes have detrimental effects on society, especially in increasing the risk of non-communicable diseases (NCDs), including obesity (Toar et al., 2023). WHO data indicates that 73% of deaths in Indonesia are caused by NCDs, with obesity being a major risk factor for these diseases (Saraswati et al., 2021).

The Indonesian Ministry of Health has revealed that obesity is a major risk factor for non-communicable diseases and is the fifth leading cause of death worldwide. At the provincial level, this issue is becoming increasingly apparent, especially in areas with large and dense populations. For instance, in Central Java, despite efforts from the government and various health organisations to raise awareness and improve access to health management, many challenges remain. The number of obesity cases has significantly increased by 13.19% from 2021 to 2024, reaching a total of 1,016,747 cases (Summary of Health Program Achievements in Central Java Province, 2024). The impact of obesity is not limited to individual health aspects but also extends to social, economic, and national productivity fields. One sector particularly vulnerable to these effects is the workforce, especially among professions with sedentary lifestyles, such as civil servants (ASN). Obesity among employees can reduce work performance quality, increase absenteeism, and shorten productive life spans. According to the 2023 Indonesian Health Survey (SKI), civil servants, military personnel, police, as well as employees of state-owned enterprises (BUMN) and regional-owned enterprises (BUMD) are recorded as the profession group with the highest prevalence of obesity in Indonesia, at approximately 32%, with a higher rate among women (36.1%) compared to men (29.3%).

Recognizing this issue, the Semarang City Health Office has taken concrete steps by launching the Weight Loss Challenge (WLC) program in January 2024. This program is one form of implementing the workplace wellness program concept, defined as a series of activities or interventions designed by organizations to improve the physical, mental, and overall well-being of employees in the workplace (CDC, 2024; WHO, 2022). At the national level, the Indonesian Ministry of Health has also issued guidelines for implementing workplace wellness programs as part of GERMAS, which emphasizes disease prevention through behavioural changes and improved access to health services in the workplace (Kemenkes RI, 2023). Therefore, the Weight Loss Challenge (WLC) program at the Semarang City Health Office is not only incidental but also aligns with national health policy directions.

Based on research from various leading health institutions, engaging in physical activity regularly, 3-5 times a week, can support healthy weight loss. The American College of Sports Medicine (ACSM) and the World Health Organisation (WHO) recommend that to achieve safe weight loss, an individual should maintain a caloric deficit of about 500 to 1000 calories per day, which can lead to a weight loss of approximately 0.5 to 1 kg per week. This principle is based on the fact that the body will burn fat reserves when the calories burned exceed the calories consumed. Supported by research from the Mayo Clinic and the National Institutes of Health (NIH), it has been shown that engaging in physical activity for 150 minutes per week at moderate intensity or 75 minutes per week

at high intensity can enhance metabolism, improve body composition, and support a sustainable weight loss challenge.

Based on the background outlined, the problem formulation in this study is to evaluate the Weight Loss Challenge (WLC) program for obese employees at the Semarang City Health Office based on context, input, process, and product evaluations. This research is novel as there has not been any previous study specifically evaluating the effectiveness of the Weight Loss Challenge (WLC) program within the Semarang City Health Office. Although the concept of workplace wellness programs has been extensively researched globally by organizations such as the World Health Organization (WHO) and the Centers for Disease Control and Prevention (CDC), as well as national guidelines from the Indonesian Ministry of Health, the implementation and evaluation of such programs remain limited in local government agencies, particularly in Central Java. The Weight Loss Challenge (WLC) program is a new initiative launched in January 2024, and thus, there are no academic studies or independent evaluation reports that comprehensively discuss its effectiveness.

METHODS

This study employs a qualitative approach with a descriptive-evaluative research design, aimed at providing an in-depth description and evaluation of the implementation of the Weight Loss Challenge (WLC) program at the Semarang City Health Office. A qualitative approach was chosen because it can generate data in the form of narratives that explain the meaning, context, and social dynamics of the phenomenon being studied (Citriadin, 2020; Nasution, 2023). This research is also evaluative to assess the relevance, effectiveness, and potential development of the program based on the four dimensions of the CIPP model. The subjects of this study are not samples in the statistical sense but rather informants who have direct experience related to the implementation of this program. The subject selection technique used is purposive sampling, which involves selecting individuals who are relevant and can provide sufficient information to answer the research questions (Dawis et al., 2023). The research subjects consist of 12 individuals, including 5 program participants and 7 program organisers. Subject selection continued until data saturation was reached, meaning no new information was obtained from additional subjects.

Data collection techniques were carried out through observation, in-depth interviews, and documentation. Observations were conducted during several sessions of the Weight Loss Challenge (WLC) program, such as physical exercise sessions, Body Mass Index (BMI) measurements, and the lifestyle of employees in the workplace. The results of the observations were recorded in daily notes by the researcher. Subsequently, in-depth interviews were conducted with health promotion staff as organizers and employees with obesity or overweight status as program participants. The interview guide was designed based on the CIPP evaluation dimensions to ensure a focus on the aspects of context, input, process, and product. Documentation was carried out by

collecting supporting documents such as program reports, activity photos, attendance sheets, and weekly participant progress data. The primary instrument in this study is the researcher themselves as a human instrument, assisted by interview guidelines, observation rubrics, and documentation guides. These instruments have been validated by three experts: Prof. Dr. Setya Rahayu, M.S., Prof. Dr. Siti Baitul Mukarromah, S.Si, M.Si.Med., and Ms. Zahrah Zakiya Ahda, M.Pd, ensuring their validity and reliability.

Data analysis was conducted interactively and continuously throughout the data collection process, using the qualitative analysis model proposed by Miles and Huberman, which includes: data reduction, data presentation, and conclusion drawing/verification (Nasution, 2023). Data reduction involved summarizing and filtering information from interviews, observations, and documentation to maintain focus. Data presentation was carried out in narrative form and matrices to facilitate interpretation. The final stage is conclusion drawing or verification, where the researcher seeks meaning from the collected data, identifying patterns, relationships, similarities, or differences to provide answers to the research questions. Data validity was tested through source, time, and method triangulation. Source triangulation was performed by comparing information from various subjects, while time triangulation involved repeated data collection at different times. Method triangulation was conducted by comparing data from observations, interviews, and documentation. These steps enhance the credibility, transferability, dependability, and confirmability of the research findings (Mekarisce, 2020). The research was conducted from February to May 2025, encompassing the stages of preparation, data collection, data analysis, and report writing. The results of the study were then used as a basis for recommendations for the development of the Weight Loss Challenge (WLC) program within the Semarang City Health Office and other agencies wishing to adopt similar programs.

RESULTS AND DISCUSSION

Result

The results of this study were obtained through in-depth interviews with participants of the Weight Loss Challenge (WLC) program and organizing staff at the Semarang City Health Office. These interviews provided detailed information regarding the implementation of the program, particularly in the context of evaluation based on the CIPP model (Context, Input, Process, Product), focusing on identifying key components in each evaluation aspect. Additionally, the collected data have been verified and confirmed through field observations and analysis of documentation related to the Weight Loss Challenge (WLC) program at the Semarang City Health Office. Based on the program evaluation using the CIPP model, the following are the main findings of the research:

Context Evaluation

The Weight Loss Challenge (WLC) program was launched by the Semarang City Health Office in January 2024 as part of the GAS MASBRO program to help employees lose weight, improve productivity, strengthen the immune system, and serve as an example of a healthy lifestyle. This program is an implementation of the Semarang Mayor Regulation Number 66 of 2023. Data shows that 43.15% of Semarang City Health Office employees are overweight or obese, which increases the risk of chronic diseases. The Weight Loss Challenge (WLC) program was designed as a response to this condition. The main benefits of the program are to help participants achieve their ideal weight and enhance productivity. The program is feasible to implement as it aligns with the GERMAS vision and is easily accessible to employees. Resources provided include a fitness room, gym equipment, exercise guides, and supervision from health promotion staff and internship students. Challenges faced include a lack of professional instructors, monotonous exercises, limited facilities, and minimal monitoring of participant progress. Initially, employees were unaware of the program's benefits, but with leadership support, enthusiasm increased, creating a new culture that is more health-conscious.

Input Evaluation

Key stakeholders in this program include health promotion staff, employees who are overweight or obese, internship students, and agency leadership. Implementation strategies include determining the types of exercises, flexible scheduling, BMI monitoring, and the use of exercise guides. The program does not utilize additional funding and fully leverages existing facilities. It is attended by all employees with an overweight or obesity status, with the number of participants varying each week. The program is based on regulations and internal data showing the prevalence of overweight among employees.

Process Evaluation

The program was designed in January 2024, but there have been no significant developments during its implementation. The implementation did not fully align with the initial plan, with a lack of professional instructors and exercise variety. Monitoring is conducted through attendance and BMI measurements, with additional nutrition education classes for participants struggling to lose weight. The feedback mechanism through WhatsApp groups is less effective, with information conveyed only in numerical form without analysis.

Product Evaluation

The program has had positive impacts, such as increased awareness of healthy lifestyles, although there has not been a significant decrease in the percentage of overweight individuals. The program is not fully effective in reducing weight, but it has succeeded in fostering a new culture and raising awareness. The program has the potential to be replicated in other agencies, but it requires strategic modifications. The sustainability of the program has not been fully established, although there are positive indications such as leadership support and available facilities. There have been no periodic adjustments to the program, and some technical challenges remain unresolved, indicating the need for a more effective feedback mechanism.

Discussion

The program evaluation must be designed to provide objective and valid information, as the results will serve as a basis for subsequent policies. The following

aspects of the evaluation of the Weight Loss Challenge (WLC) program at the Semarang City Health Office will be discussed in the research findings:

Context Evaluation

The Weight Loss Challenge (WLC) program was launched by the Semarang City Health Office in January 2024 as part of the GAS MASBRO. This program is a local initiative aimed at addressing health issues among employees, particularly the high prevalence of overweight and obesity. While it aligns with national visions such as the Healthy Living Community Movement and the Healthy ASN campaign implemented by the Ministry of Health since 2019, the execution of this program was independently designed by the Semarang City Health Office based on internal data and field conditions. This reflects the regional commitment to promote healthy lifestyle changes within the government environment.

Internal data indicates that 43.15% of employees are overweight or obese, which increases the risk of chronic diseases such as hypertension and diabetes. Sedentary work patterns also contribute to decreased productivity. Therefore, the Weight Loss Challenge (WLC) program serves as a preventive and promotional solution, focusing on changing healthy lifestyle patterns in the workplace. The goals are not only to reduce weight but also to enhance immunity and raise awareness of the importance of maintaining health. The benefits of the program are felt at both the individual and organizational levels. At the individual level, participants have the opportunity to achieve their ideal weight, improve their immunity, and establish long-term healthy habits. At the organizational level, this program contributes to enhancing the institution's image as an entity that cares about the health of its human resources. The feasibility of the program is supported by its alignment with the GERMAS and Healthy ASN visions, strategic implementation locations, and easy accessibility during working hours.

The Semarang City Health Office has provided various facilities and resources to support the program's implementation, including a fitness centre, ready-to-use gym equipment, visual exercise guides, and supervision from health promotion staff. The involvement of internship students from the MBKM program also adds value in terms of technical support, although their capacity and qualifications still need evaluation. Despite the program's significant potential, its implementation faces several operational challenges. Key obstacles include a lack of professional instructors, monotonous exercises, inadequate facilities, weak monitoring systems, and workplace distractions. These issues are interconnected and contribute to the overall effectiveness of the program. Initially, employee enthusiasm for the program was low, with many employees unaware of the long-term benefits. However, after the Head of the Semarang City Health Office mandated the program for employees with overweight and obesity status, enthusiasm began to increase. Leadership support and intensive socialization successfully created a new culture in the workplace, where employees started to recognize the importance of maintaining health.

Input Evaluation

The success of the program is closely linked to the active roles of various stakeholders. The Health Promotion staff plays a key role as the main organizer, designing activities and conducting monitoring. Program participants are employees of the

Semarang City Health Office with overweight or obesity status, and their participation is a determining factor in achieving the program's goals. Internship students also contribute as companions, although they may not have professional fitness backgrounds.

The program is designed with simple yet effective strategies, including aerobic exercises and strength training, flexible training schedules, and BMI progress monitoring. Although it does not utilize additional funding, the program leverages existing facilities, making it efficient and relevant for implementation in government agencies with budget constraints. The program does not require additional funding and fully utilizes available facilities, such as the fitness centre and gym equipment. This makes the program a tangible example of a health initiative with zero cost. The program has a broad scope, targeting all employees of the Semarang City Health Office with an overweight or obesity status. The number of participants is dynamic and can change weekly, ensuring that all eligible employees can participate. The Weight Loss Challenge (WLC) program is built on a strong foundation of research and data, including the Semarang Mayor Regulation Number 66 of 2023 regarding the Healthy Living Community Movement, the National "Healthy ASN" campaign by the Indonesian Ministry of Health since 2019, and internal data showing the prevalence of overweight among employees. This demonstrates the regional commitment to promoting healthy lifestyles.

Process Evaluation

The Weight Loss Challenge (WLC) program was designed in January 2024, but there have been no further developments during its implementation. The physical exercise plan still refers to the initial design without adjustments based on participant feedback. The program's implementation has faced several deviations from the original plan, including a lack of technical assistance and monotonous exercises. The limited fitness centre facilities have also posed challenges for participants. Monitoring is conducted through attendance and BMI measurements, but it has not included qualitative aspects such as dietary history and individual motivation. There are additional initiatives in the form of optional nutrition education classes, but not all participants attend these classes. Feedback is provided through WhatsApp groups, but this format is less interactive and does not offer in-depth analysis. The feedback system needs to be developed to be more personal and responsive.

Product Evaluation

The Weight Loss Challenge (WLC) program has successfully increased employee awareness of healthy lifestyles, although there has not been a statistically significant weight loss. Positive impacts include changes in daily habits and increased energy levels. The program has not been fully effective in reducing the rates of overweight or obesity, but it has succeeded in creating a new culture in the workplace and increasing active participation without material incentives. This program has significant potential to be replicated in other agencies, especially due to its simple approach and minimal costs. The sustainability of this program has not been fully established, but there are positive indicators such as independent employee activities and leadership support. To strengthen sustainability, it is recommended to enhance the technical support and monitoring systems. By the end of 2024, there have been no significant revisions or modifications to the program design, indicating the need for a more effective feedback mechanism for evaluation and strategy adjustments. Thus, the Weight Loss Challenge (WLC) program at the Semarang City Health Office demonstrates good potential for improving employee health, although improvements in implementation and monitoring are still needed to achieve more optimal results. This program can serve as a model for health interventions that can be replicated in other agencies with necessary adjustments.

CONCLUSION

Based on the evaluation results of the Weight Loss Challenge (WLC) program at the Semarang City Health Office using the CIPP model (Context, Input, Process, Product), several conclusions can be drawn as follows:

1. Context Evaluation

The Weight Loss Challenge (WLC) program has been designed to meet the real needs of employees experiencing overweight or obesity and has received full support from the agency's leadership. The program aligns with the GERMAS and Healthy ASN visions. However, technical and structural challenges during implementation have hindered the achievement of the primary goal, which is significant weight loss. To achieve optimal results, a promotional and preventive approach needs to be integrated along with support for a healthy work environment.

2. Input Evaluation

The program efficiently utilizes internal resources without additional funding. Instructors are sourced from health promotion staff and internship students. While this is efficient, the limitations of professional instructors and the lack of evidencebased implementation guidelines are major obstacles to achieving maximum effectiveness in weight loss among employees.

3. Process Evaluation

The program is conducted once a week in the fitness centre. Participant monitoring still relies on manual methods that are less informative. Additionally, feedback from participants during the program has not been optimally utilized for significant adjustments or improvements. This indicates that the monitoring system and twoway communication between organizers and participants still need enhancement.

4. Product Evaluation

Physically, the Weight Loss Challenge (WLC) program has not achieved the target of ideal weight loss based on Body Mass Index (BMI). However, the program has shown effectiveness in non-physical aspects, such as increasing participant motivation and fostering an organizational culture that supports the adoption of healthy lifestyles in the workplace. Active participation and social interaction among employees during the program are significant indicators of non-physical success.

Based on the research findings, the following recommendations for the development of the Weight Loss Challenge (WLC) program at the Semarang City Health Office are proposed:

- 1. For Stakeholders
 - a. Provide permanent professional sports instructors instead of relying solely on internship students.
 - b. Relocate the fitness centre to a more conducive location to create a comfortable training atmosphere that does not disturb other employees.
 - c. Conduct further research on the phenomenon of overweight among employees / ASN, who tend to have sedentary work patterns.
- 2. For Implementation Strategies
 - a. Develop a wider variety of exercises to effectively promote weight loss, including functional training and interval-based movements.
 - b. Form small support groups to motivate participants during the program and enhance active participation.
- 3. For Monitoring and Feedback
 - a. Develop a digital application for tracking participant progress, allowing evaluators to provide more personalised and intensive feedback.
 - b. Implement a non-material reward system to encourage participant enthusiasm, such as symbolic awards or monthly certificates.
 - c. Introduce more innovative forms of attendance or proof of program participation, not just signatures, such as daily activity photos or digital activity logs.
- 4. For Sustainability and Transportability
 - a. Compile a comprehensive implementation guide as a reference for replicating the program in other agencies.
 - b. Offer the Weight Loss Challenge (WLC) program as a model for health interventions for ASN in Central Java and other regions.

By implementing these recommendations, it is hoped that the Weight Loss Challenge (WLC) program can become more effective in achieving weight loss targets while also serving as a sustainable and easily replicable workplace health program model.

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