

POPULATION HEALTH AND DIGITAL HEALTH PROMOTION

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LECTURE : DIOLA BIJLHOUT

High rate of Obesity in Teenage group in UK.

- The one digital app for teenagers:

“TeenFit Tutor: Empower your Health”



(Source: Google.)



(Source: Google.)



Details of the chosen Activity

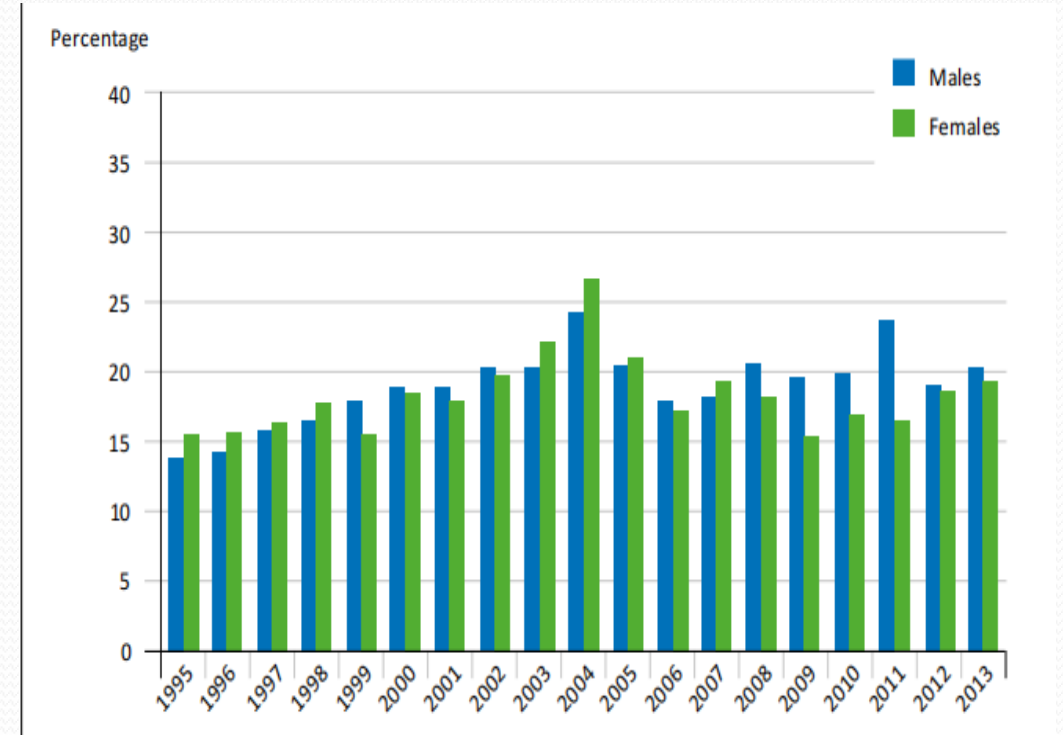
- ❖ The educations will be provided by the campaign organisers by using the online platform about the TeenFit application on weekly bases (Barry et al., 2014).
- ❖ Because of stigma they faced difficulties in to get support. So, this app will help to give support by giving education on online platform (Barry et al., 2014).
- ❖ **Aim:** The TeenFit app with smartwatch integration aims to combat teenage obesity in UK by seamlessly integrating technology with health promotion.
- ❖ By providing educational resources about dieting and nutritional intake, this activity aims to educate teenagers about symptoms of obesity, causes of obesity and its preventive measures.
- ❖ This activity strives to empower teenagers to take control of their health, from lasting habits, and to prevent and reduce obesity rates in **13 to 18 age group** of population by enjoyable and sustainable approach.



- ❖ This app gives community support by built-in social platform for connecting with peers, sharing achievements, and offering mutual support.
- ❖ TeenFit app allows parents to monitor their teen's progress and actively support their health journey.

Rationale

- ❖ **Prevalence:** According to NHS Digital (2020), 20% young teenagers are living with obesity and 67% young people are meeting active guidelines.
- ❖ NICE give a national guidelines for to measure BMI index calculation (NHS Digital, 2020). Such as, whose BMI is more than 25, they considered as overweight (NICE, 2023).
- ❖ One study found link between fast-food consumption and obesity in young people (Fraser et al., 2012).



(**Source:** Health and Social Care Information Centre, Health Survey for England)

Complications with Obesity

Obesity is one of the most reason for other developing co-morbidities.
Such as,

- Diabetes (Type 2).
- Heart disease.
- Hypertension.
- Cancer.
- Asthma.
- Gastro-oesophageal reflux disease (GORD).
- Gallbladder problems.



(Source: Google)

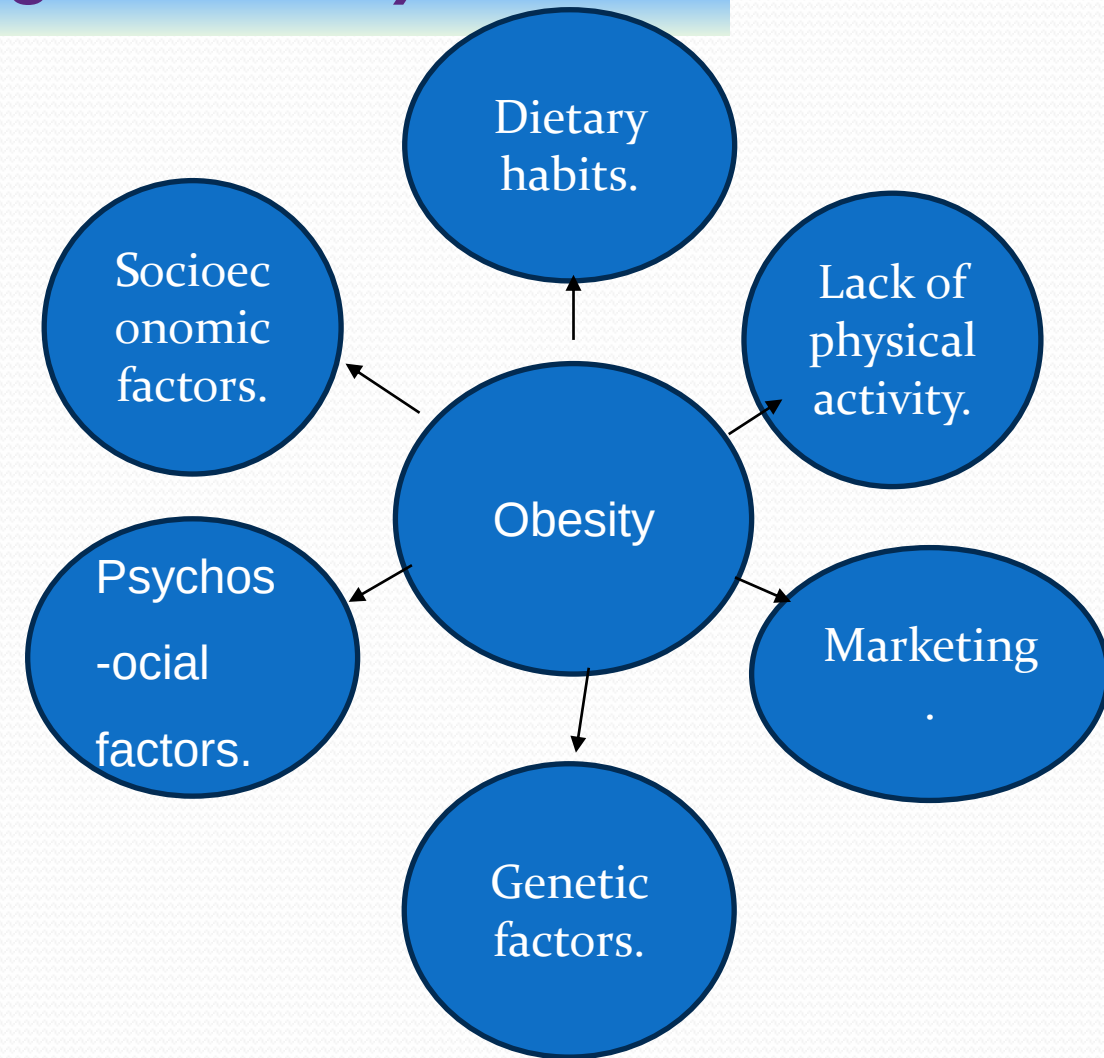
(NICE, 2023).

The chosen population (Age 13 to 18).

➤ Why this age group?

- Followed dietary habits.
- Lack of physical activity.
- Availability of unhealthy foods.
- Socioeconomic factors.
- Psychosocial factors.
- Marketing and advertising.
- Genetic and biological factors.

(Weng et al., 2012).

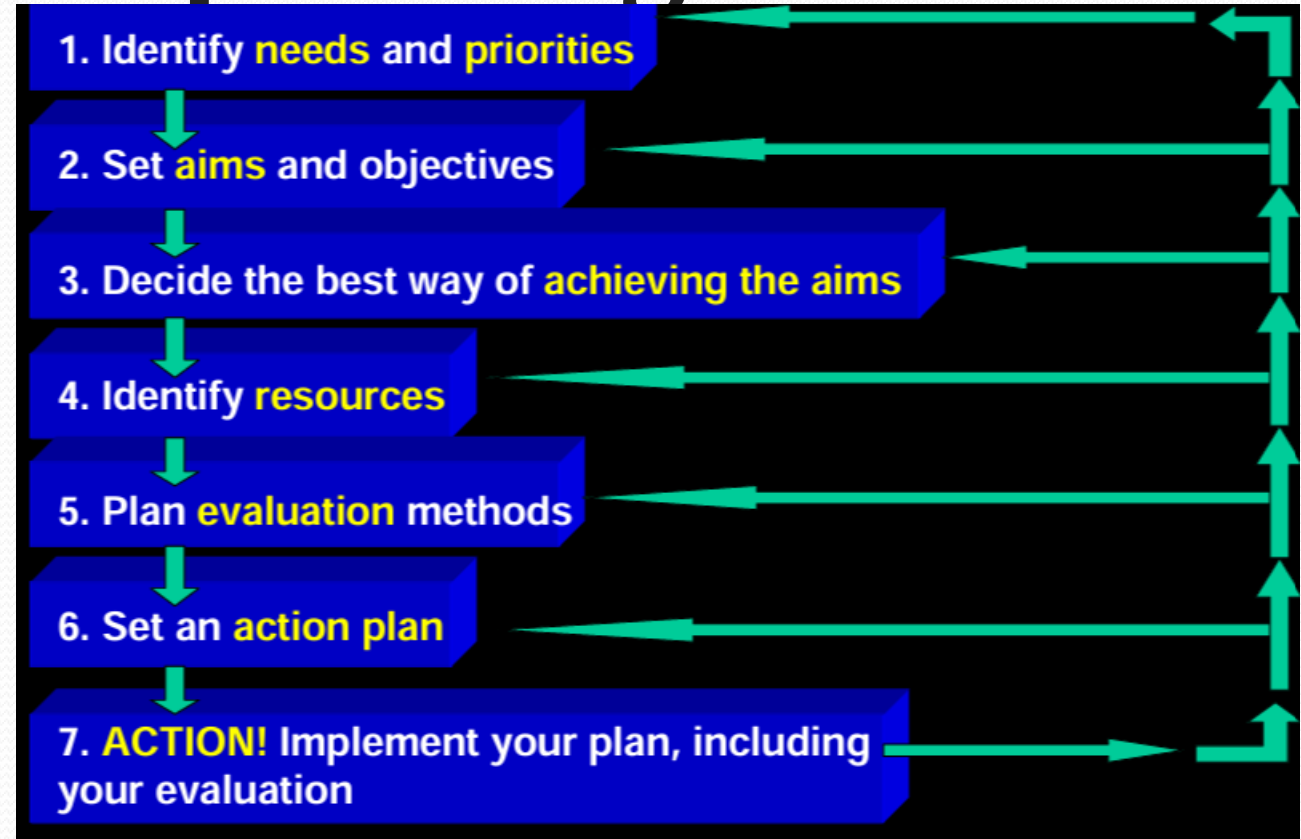


Concept of a planning model

- Planning models are considered to be crucial for developing a framework to carry out any process or tactics (Bryson, 2018).
- It helps in reflecting the various assumptions and values regarding the nature of the world due to which planning is done followed by the role of the planner.
- The planning for TeenFit will be done using Ewles and Simnett planning model.

Ewles and Simnett planning model

- This planning model is considered to be a descriptive model towards implementation of a specific project plan.
- It mainly focuses on seven major stages for designing the relevant program planning followed by required actions (Parker and Fleming, 2020).
- This planning model is chosen due to its less complicated nature towards actual implementation and accomplishment of accurate program objectives in a successful manner.



Source: Parker and Fleming, 2020

Stage 1: Identify the needs and priorities

Children and adolescents (aged 5–19 years)*

	Boys 2020	Boys 2025	Boys 2030	Boys 2035
Number with obesity (millions)	103	140	175	208
Proportion of all boys	10%	14%	17%	20%
	Girls 2020	Girls 2025	Girls 2030	Girls 2035
Number with obesity (millions)	72	101	135	175
Proportion of all girls	8%	10%	14%	18%

Source: Healthpolicy, 2023

- The major problem or need that has been identified is the increasing rate of obesity among teenagers which needs to be addressed for ensuring their good health and wellbeing.
- The reports of Healthpolicy (2023) has highlighted that more than 10% boys and 8% girls have been recorded to suffer from obesity.
- This outcome is expected to nearly double or more by the end of 2035.
- Increased obesity can cause health issues like hypertension, high blood pressure, type 2 diabetes, and many others (Chu et al. 2018).
- The priority should be focused on addressing this health issue among teenagers for ensuring their healthy life.

Stage 2: Set aims and objectives

- The primary aim of this program is to promote the new digital TeenFit app with smartwatch integration among the teenagers .
- The objectives are stated below using the SMART model

Objectives	Specific	Measurable	Attainable	Relevant	Time span
To increase the brand awareness of Teenfit app	Increasing the number of enquiries and app downloads by 15%	Increase in number of downloads of the app	Use of social media marketing on platforms like Facebook, Instagram, YouTube ads, Google ads, and others	Help in reducing the obesity rate among teenagers	10 months
To increase target user engagement	Increasing the post reactions and comments on social media by 10%	Increasing number of followers on social media pages	Monitoring relevant data like increased teenage confidence		11 months
To ensure increased success rate	Increasing the positive feedback and referrals by 10%	High acknowledgement from users	High quality service, proper tracking facility	Help in enhancing teenage fitness	12 months

Stage 3: Identify the best way of achieving the objectives

- The primary base of the determined objectives is the proper use of digital marketing.
- Social media marketing will be used for ensuring proper digital promotion of TeenFit app.
- Social media marketing will help in creating various informative and visual posts through which targeted audiences can easily connect, thereby, increasing their awareness towards increasing teenage obesity (Shawky et al. 2019).
- Social media marketing will further help in interacting directly with the targeted audiences, thereby, educating them and encouraging them to access the TeenFit app.

Stage 4: Identify resources

Major resources required in
this project include

Support from government and
local authorities

•Collaboration with health
institutions (Grimmelikhuijsen
and Feeney, 2017)

•Tech skilled individuals for
monitoring and management of
TeenFit apps

Financial resources from banks
and government funds

Stage 5: Evaluation method

Formative evaluation method will be used in this program.

Formative evaluation method is effective while developing a new program by ensuring the appropriateness, feasibility, and acceptance of the same among the targeted audience (Irons and Elkington, 2021).

Using self evaluation method of formative evaluation, further necessary improvements can be made for TeenFit in future.

Stage 6: Action Plan

Time	Activities	Responsible individual/ team
0-20 days	Development of TeenFit app	IT skilled team
20-50 days	Trial of the TeenFit app	IT skilled team and healthcare professionals
50-70 days	Integration with smartwatch	IT skilled team
70-100 days	Final trial of the app	IT skilled team and healthcare professionals
100-200 days	Monitoring and implementing social media marketing	Marketing team
200-365 days	Maintenance and monitoring of app and promotions	Marketing team
Total 365 days	Managing financial resources	Accounts and finance team

Stage 7: Implementation of the plan

The implementation of the plan will be evaluated using various KPIs or metrics.

The increasing engagement and interaction with targeted audiences will indicate increased brand awareness (Dabbous and Barakat, 2020).

The enhanced number of app downloads and reviews will indicate the improved performance and customer engagement.

The reduced number of obesity among teenagers will help in ensuring the ultimate success.

The launch of this app has been estimated to be on October 2024.

Potential stakeholders for successful implementation.

1. Health care providers
 2. government health agencies
 3. technology partners
 4. Community organizations
 5. Academic research institutes
 6. School and educational institutes
- (O'Cathain et al ,2019)

1. Health Care Providers

Hospitals and clinics: partnering with healthcare institutions can provide access to a broader audience and ensure integration with existing health systems.

- Physicians and nurses: involving healthcare professionals ensures credibility and can enhance the intervention's effectiveness.
- Pediatricians and adolescent health specialists: Seeking support from healthcare professionals ensures the app aligns with health guidelines and provides accurate health information for teenagers
- (O'Cathain et al ,2019)

2 Government Health Agencies

- Ministries of health: Collaboration with government health agencies can provide support, and resources, and help navigate regulatory requirements.
- Public health department: These departments may offer valuable insights, data, and support for community-level interventions.
- (O'Cathain et al ,2019)

3. Technology Partners:

- Tech companies: Collaborating with technology companies can provide the necessary platforms, tools, and expertise for developing and implementing digital interventions.
- App developers: If the intervention involves a mobile app, partnering with app developers can streamline the technical aspects.
- (O'Cathain et al ,2019)

4. Community Organizations

- Nonprofit organization: NGOs focused on health or specific communities can provide valuable insights, community engagement, and on-the-ground support.
- Community leaders: Engaging local leaders can enhance the cultural relevance and acceptance of the intervention within specific communities.
- (O'Cathain et al ,2019)

5. Academic Research Institutes

- Universities and research centers: Partnering with academic institutions can bring research expertise, data analysis, and evaluation capabilities to the intervention.
- Researchers and academics: Involving experts in relevant fields can enhance the credibility and evidence base of the intervention.
- (O'Cathain et al ,2019)

6.School And Educational Institutes

- Parents and teachers' associations:
- Teachers and school administrators: Collaborating with schools can facilitate the integration of the Teenfit app into educational programs, making it accessible to many teenagers.
- Parents: involving parents ensures support at home and encourages teenagers to use the app. Parental buy-in is crucial for successful engagement
- Physical education teachers: Working with PE teachers can integrate the app into physical education classes and encourage its use for promoting a healthy lifestyle
- (O'Cathain et al ,2019)

Barrier For Successful Implementation

Technological challenges	Limited outreach
Technical issue	Limited Access to technology
Lack of interest	User engagement and adoption
Data security	Privacy and security concerns
Educational barriers	Health literacy and education
Cultural and societal factors	Limited health literacy
Training and support	Cost of technology
Financial constraints	Affordability for user

(Kaboré Et Al, 2022)

Legal And Ethical Considerations

1. Data privacy and security
2. Informed consent
3. Accessibility and inclusivity
4. Accuracy of information
5. Transparency and honesty
6. Professional code of conduct
7. User autonomy

- (Brall, Schröder-Bäck, and Maeckelberghe, 2019.) (Anderson, 2007).
(Maeckelberghe, et al ,2023)

Benefits of Digital Intervention

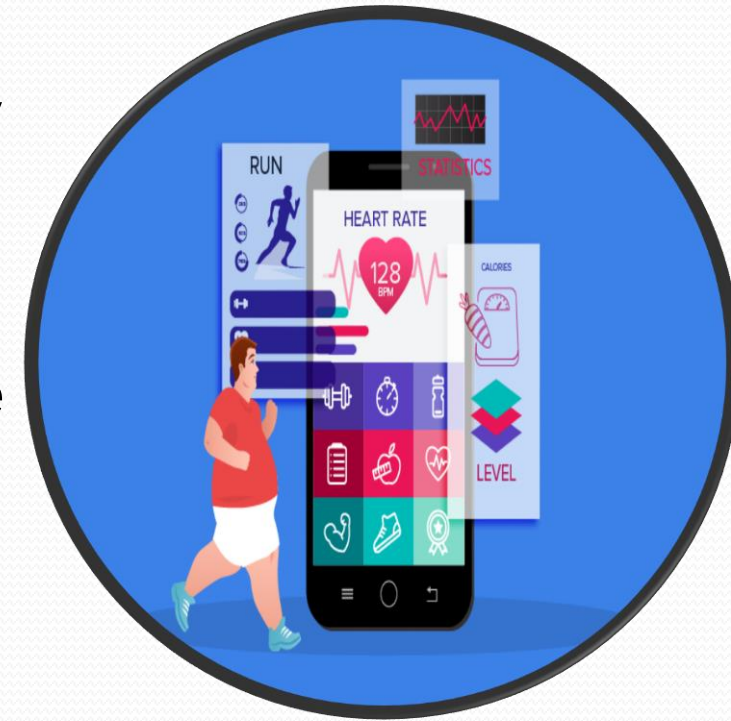
- The app can provide personalized fitness plans and encourage teenagers to engage in regular physical activities (Lu, Turner, and Murphy, 2013).
- Wearable devices can track their steps, heart rate, and other fitness metrics, motivating them to meet their daily activity goals (Wang et al, 2022).
- Digital technology allows for the creation of customized workout plans based on individual fitness levels, goals, and preferences (Lu, Turner, and Murphy, 2013)..
- Wearables can provide real-time feedback on performance, form, and intensity during workouts. This immediate feedback helps teenagers make adjustments to their exercise routines, promoting safer and more effective workouts (Wang et al, 2022).



(Source: google image)

Benefits of Digital Intervention

- Set and track fitness goals to boost confidence and motivation (Lu, Turner, and Murphy, 2013).
- Learn about exercise, nutrition, and well-being for lifelong healthy habits (Wang et al, 2022; Schulz, 2017).
- Connect with friends or virtual fitness communities for enjoyable workouts (Wang et al, 2022).
- Schedule workouts conveniently, aiding busy students in effective time management (Lu, Turner, and Murphy, 2013).
- Gamification elements: Engage with rewards, badges, and challenges for a motivating exercise experience (Wang et al, 2022; Schulz, 2017).
- Regular use of wearables fosters awareness, motivating healthier lifestyle choices (Wang et al, 2022).



(Source: google image)

Implication of digital technology on policies, research and education

- **Enhance accessibility:** Digital technology facilitates widespread access to educational resources and policy research materials. TeenFit Tutor app and wearables can extend educational support to teenagers regardless of their location (Deranek et al, 2021).
- **Data- driven decision making:** Policy research benefits from data analytics, aiding evidence-based decision-making. Wearable data from TeenFit Tutor app can inform personalized education strategies (Deranek et al, 2021) .



Implication of digital technology on policies, research and education

- **Global collaboration:** Digital platforms foster international collaboration in research and education. TeenFit Tutor app can connect teenagers globally, promoting cultural exchange and collaboration (Goodyear et al, 2019).
- **Cybersecurity challenges:** Increased reliance on digital platforms raises concerns about data security and privacy. Policies need to address cybersecurity issues in education and app usage (Goodyear et al, 2019).



(Source: google image)

Implication of digital technology on policies, research and education

- **Continuous learning:** Digital technology supports lifelong learning, necessitating policies for ongoing education opportunities. TeenFit Tutor app encourages continuous engagement in both fitness and educational activities (Lee et al, 2020).
- **Remote learning:** Digital tools enable remote education, reducing geographical barriers for students (Deranek et al, 2021) .
- **E-learning infrastructure:** Policies must address the development and maintenance of robust e-learning infrastructure (Goodyear et al, 2019).



(Source: google image)

CONCLUSION

- In summary, the "TeenFit Tutor" app is like a helpful friend for teenagers in the UK, tackling the problem of obesity. It uses cool technology like smartwatches to keep an eye on daily activities, provides personalized fitness plans, and teaches about healthy eating. With fun challenges and rewards, it makes getting fit enjoyable and aims to empower teens to lead healthier lives, no matter where they are. Overall, it's a promising tool to make staying healthy a cool and lasting habit for young people.

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