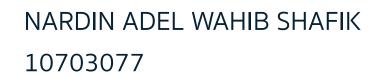


MSc Product Service System Design A. Y. 2020/2021



Collaborative Service System for the Treatment of Patients With Eating Disorders





## RESEARCH FRAMEWORK



Psychology in Lebanon

Nutrition in Lebanon

EatingDisorders

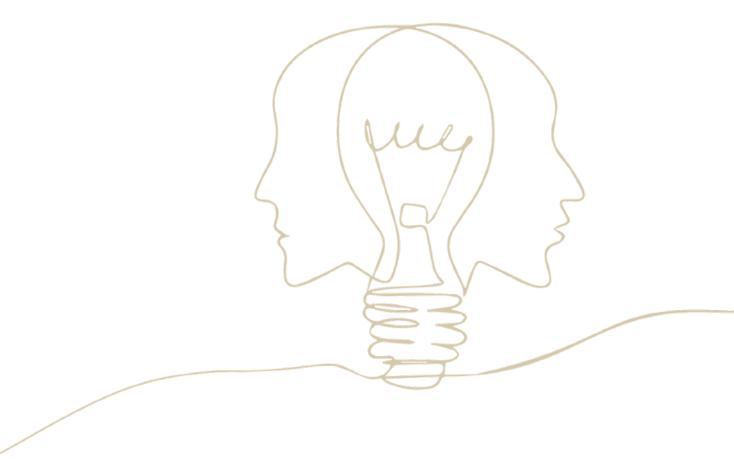
Connections



# PSYCHOLOGY IN LEBANON

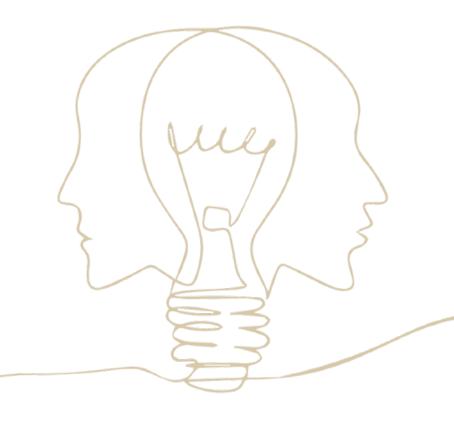
#### MENTAL HEALTH IN LEBANON

- ► Lebanese populace has long been subjected to conflict-related traumas and domestic instability
- Over a quarter of adults suffered from one or more psychiatric disorders
- ► Post-traumatic stress disorder having a particular high prevalence (approximately 25%)
- Phobias, depression, and anxiety were the most common problems among the Lebanese people, and were commonly linked to war-related stress



#### PSYCHOLOGICAL AWARENESS

- ► In Lebanon, the psychological awareness is **being speeded just recently** (after Beirut's big explosion)
- ► The **blast have caused PTSD** (Post Traumatic Stress Disorder) to a wide range of the population
- ► Mental illnesses are widespread in Lebanon, with prevalence compared to that in Western Europe\*
- Stigma against mental illness and psychological disorders in Lebanon involves a lot of stereotyping and labelling, resulting in rejecting people diagnosed with any mental illness
- ► The stigma attached to mental illness may lead to **social marginalisation** of those who suffer from it, as well as a **reduction in patients' willingness to seek mental health treatment**



<sup>\*</sup> Azər SA, Hənnə K, Səbbəgh R, et al., 2016, Kərəm EG, Mneimneh ZN, Kərəm AN, et al., 2006



# NUTRITION IN LEBANON

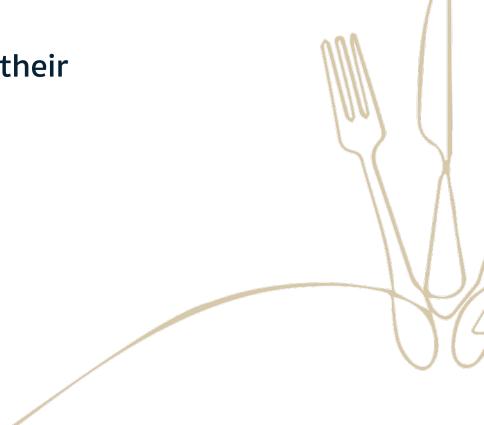
## Nutrition in Lebanon



most popular Arabic welcome phrase that inquires about a person's health **MEANS** "May God bring you health", and is used as a welcome, as well as when someone is doing physical labor or has had a long day

#### DIETICIANS IN LEBANON

- ► The Lebanese have a generally healthy diet, although it has been tainted by imported American patterns
- ► The Lebanese are very beauty concerned, therefore anything involving weight loss has always been a huge hit
- ► The head of Syndicate of Dietitians, thinks that there are over 3,000 dieticians in Lebanon, resulting in a very competitive industry
- Ministry of Public Health only requires hospitals to have one dietitian, many hospitals minimise expenses by having unpaid interns do most of the work
- Dieticians either work part-time at hospitals and run their own clinic the rest of the time or work entirely in their own private clinic



#### NUTRITIONAL AWARENESS IN LEBANON

- ► Lebanon is on track to miss all of its nutrition targets for mothers, babies, and children under the age of five
- ▶ 31.2% of women (aged 15-49 years) suffering from Anemia, little progress has been made toward the goal of lowering Anemia among women of reproductive age
- ▶ 37.0% of adult women (aged 18 years and above) and 27.4% of adult men living with obesity, the country has made no progress toward meeting the obesity objective
- ► Lebanon has a higher obesity rate than the regional average of 8.7% for women and 6% for men





# EATING DISORDERS



EATING DISORDERS IN LEBANON

- The shift in food supply has resulted in an influx of highly attractive packaged and processed meals with lower nutritional content
- War was one of life's most stressful situations to the Lebanese population, and it has been linked to higher rates
  of anxiety, depression, and post-traumatic stress disorder
- Fear of COVID-19 was linked to higher food restraint, weight, and shape concerns across the board, but especially among dietician clients

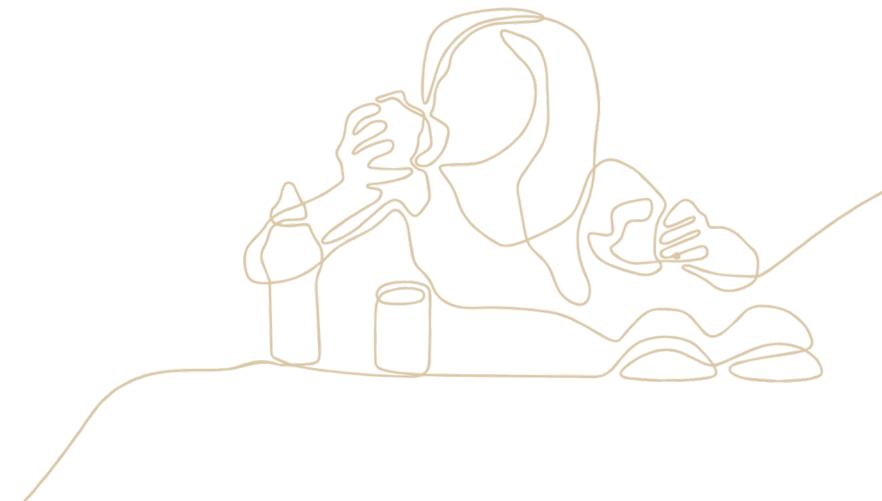


TREATMENTS
OF EATING
DISORDERS

- ► Treatment methods and approaches are different from a specialist to another, from a clinic to another, and from a country to another
- Some might think it's a dietician's job entirely and some might think it's a treatment for the state of mind, as one might think it's a mental illness or just a physical illness

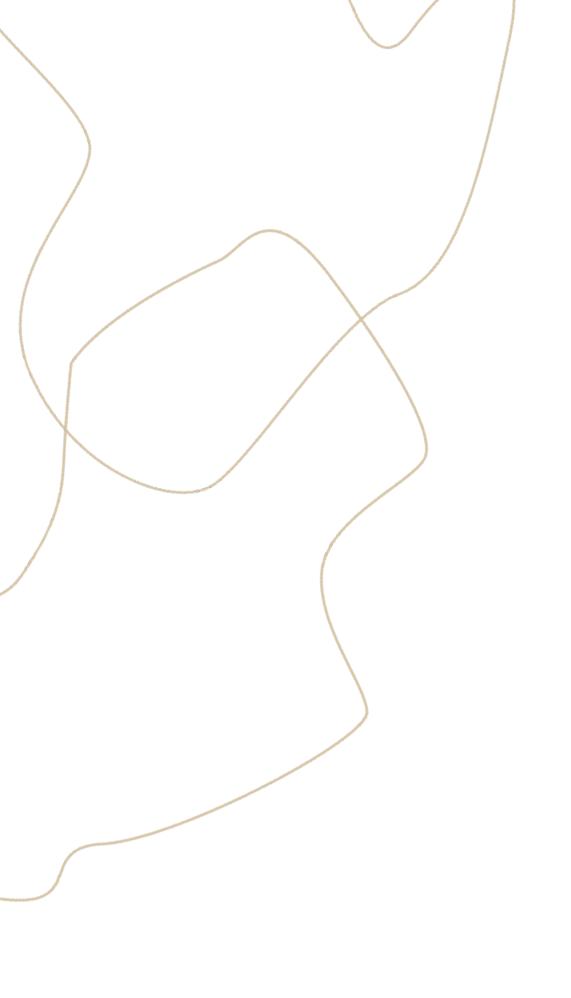


"The **best way** of treatment for eating disorders, of-course depending on the severity a patient has reached, and on what kind or type of an eating disorder they have, is a **multidisciplinary approach** of treatment."



#### TREATMENT GAPS

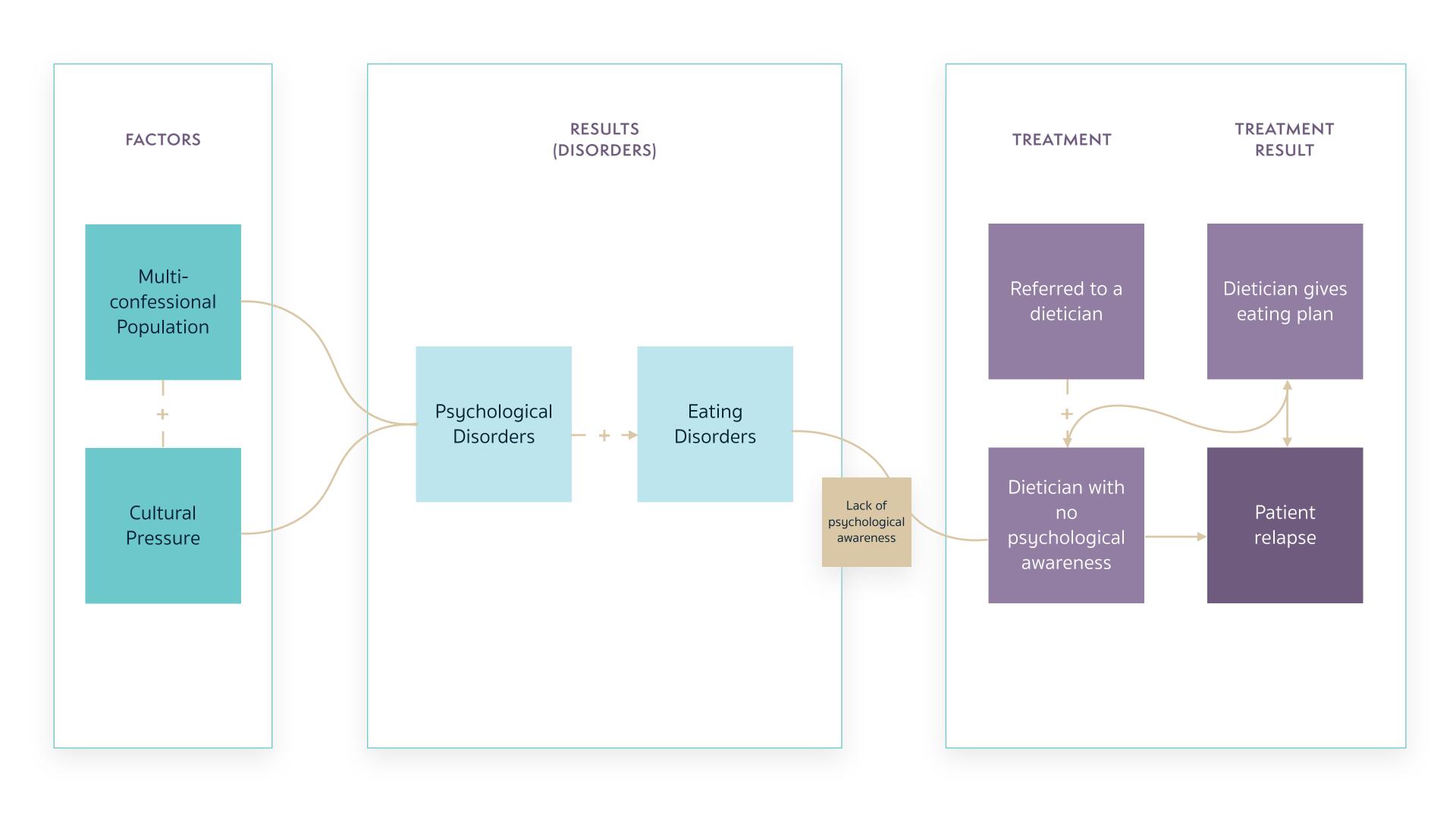
- Lebanese people suffering from an eating disorder have always been taught that what is related to food is just physical, so their first treatment intuition is to see their general family doctor or book a consult with a dietician
- ► The major gap was the **availability of the clinic to medium and low income people**, as the clinic was not affordable to them
- Awareness of people to start going to psychologists even though there were a lot of campaigns to enhance the initiative, but unfortunately not succeeding as intended



## CONNECTIONS

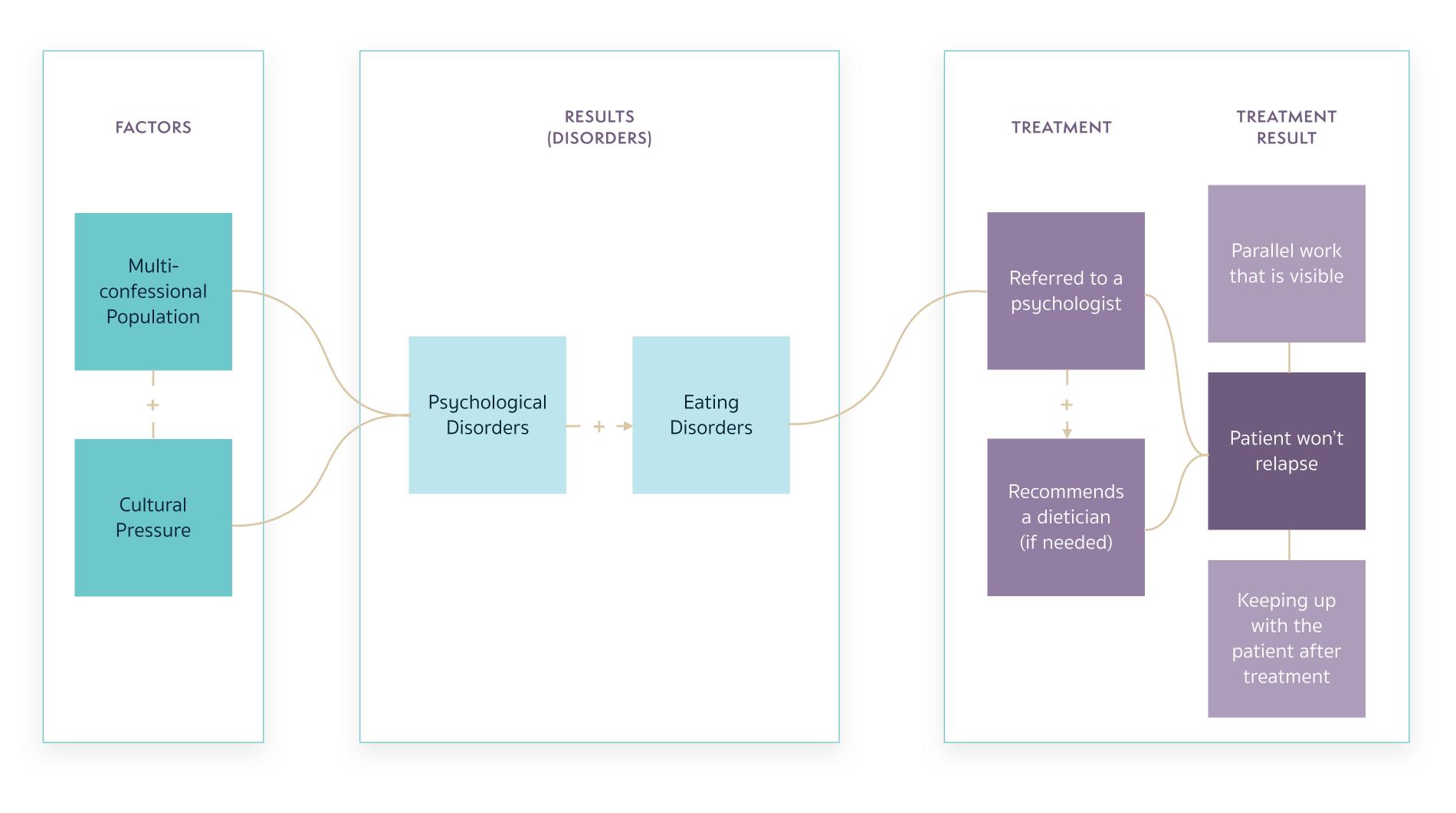
#### PROBLEM HYPOTHESIS

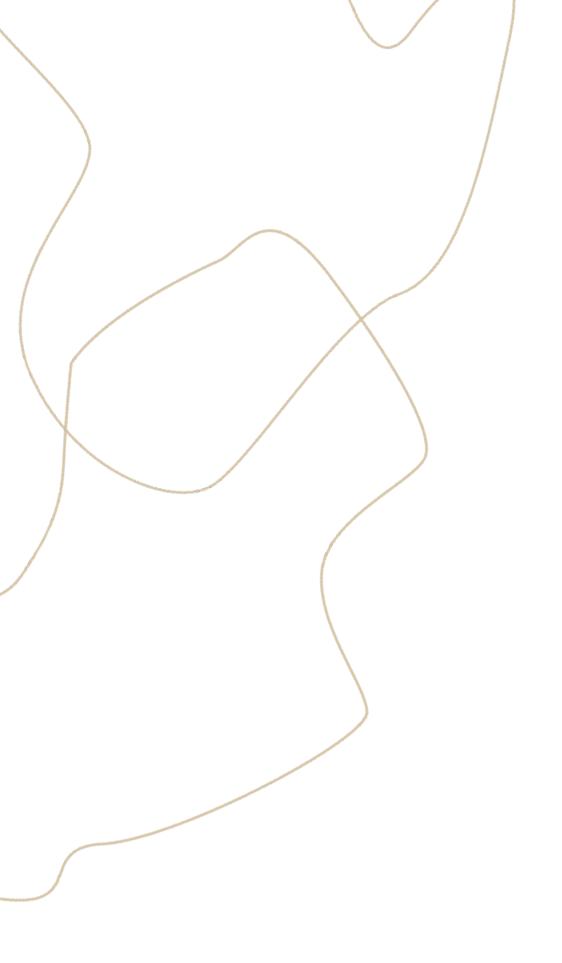




#### S O L U T I O N H Y P O T H E S I S

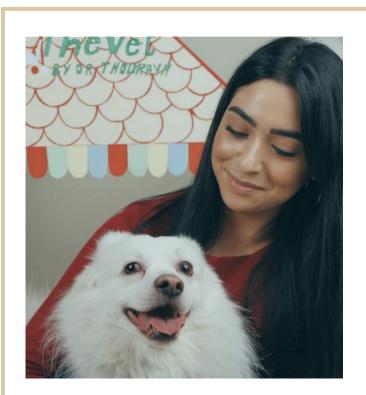






# JOURNEY MAP





#### MARIA ABBOUD

21 y.o Lebanese Living in Akkar (North of Lebanon) family social class: low-medium

#### **SCENARIO**

This user journey map is made from the point of view of the **Patient** Maria Abboud, so that it's possible to see all the different stakeholders interacting with her throughout the treatment of her Eating Disorder, starting with going to a specialist and ending with when the treatment is over.



#### THE PROBLEM

	TRAUMATIC EVENTS	IMPACT	REALIZATION	DECISION MAKING	VISIT
Stakeholders	# 14				<b># •</b>
Actions & Goals	Remembering a traumatic event that happened to the patient	The patient is being criticised from surroundings	Failing more than once in dieting and seeks for help	Influenced by external factors and search for a dietician	Emails dietician, takes appointment, and visits
Insights	Traumatic experiences cause more than just a memory in the brain that will last forever if not treated	Parents and who is around the patient can have a very negative impact on her/him	The patient usually search for their own symptoms before professional counselling	A first reaction is to talk to a dietician and not a psychologist because of the stigma	A patient's first impression to a dietician is relief, as the dietician gives the ambient and environment of change
Needs	There is a need of talking about the traumatic experience to someone that could help ease the pain	The need to be isolated a bit mentally more than just physicallyThere	There is a need to know what is wrong with the patient and a need to dig deeper	There is a need to heal the traumatic experience before the eating behaviour	The need to change physically
Opportunity	Talking to a psychologist or a group of people that went through the same trauma	Having a place without the negative impacts or make the impact positive in the eyes of the patient	Creating an assessment form that can detect an eating disorder from questions	Introducing a psychologist before a dietician or together	Changing just physically will conclude with a relapse, the change should be mentally first

#### THE DURING TREATMENT

	ASSESSMENT	RECOMMENDATION	PLAN	UPDATES	REPEAT
Stakeholders	<b>*</b>		<b>*</b>	<b>• Ψ</b>	<b>ψ</b>
Actions & Goals	Patient completes assessment survey	Dietician recommends patient to visit a psychologist	Dietician plans the meal plan according to data given by patient	Dietician and Psychologist gets acquainted and aligned	After every milestone or step forward, repetition of the last 2 steps occurs (plan + Update)
Insights	A patient's first talk usually has a bit of lies in it as they are scared of judgment the way they had been judged before by others	A patient's impression on going to a psychologist is always thinking that they are "crazy" and that's because of the stigma	A patient's view is that when they start on a diet plan they will change their body's shape and everything on will be just fine	The patient needs to be aware of everything happens, even the information shared between the therapists	The patient will get used to something even if they don't like it or find it uncomfortable for the sake of changing their image and body.
Needs	The need to be honest	The need of psychological awareness	There is a need to know what is wrong with the patient and a need to dig deeper	The need to be aware on everything	The need to be more open and talk when something is bothering
Opportunity	Assessment questions that are done individually without pressure or supervision	A psychological therapist/ specialist should be introduced with the dietician since the beginning	The opportunity to include other kind of specialists and awarenesses	Show the progress and information shared to the patient	Having a space where the patient can say what they want, whenever they want

	ASSESSMENT	UPDATES		DECISION	STAY ALIGNED
Stakeholders	<b># •</b>	<b>ψ</b>		<b># ♦</b> Ψ	<b># ♦</b> Ψ
Actions & Goals	Patient completes assessment survey again	Dietician and Psychologist gets aligned		Decision made by the patient and both therapist on ending the treatment or the need to continue	Stay aligned with patient with a session in the longer term
Insights	The patient will lie again to show that they have change to not show up as a failure.	The patient would end a relationship with their therapist if they felt like they're talking bad about them even if they were not		The patient will get used to something even if they don't like it or find it uncomfortable for the sake of changing their image and body	The patient most of the time skips the follow- ups and try to find another dietician as they're not satisfied.
Needs	The need to show success	The need to trust a specialist and therapist more		The need to know when to stop the treatment	The need to stay loyal to certain therapists and specialists
Opportunity	The digital world can make someone more honest as it hides faces and expressions	Digitalising the steps and conversations and showing everything to the patient	22	Reaching a certain milestone that is set by the patient	Follow- ups shouldn't be a long term, and it should be a feeling established by the patient

# AS-IS JOURNEY MAP (HIGHLIGHTED CRITICAL STAGES)

#### THE PROBLEM

	TRAUMATIC EVENTS	IMPACT	REALIZATION	DECISION MAKING	VISIT
Stakeholders	# 14				
Actions & Goals	Remembering a traumatic event that happened to the patient	The patient is being criticised from surroundings	Failing more than once in dieting and seeks for help	Influenced by external factors and search for a dietician	Emails dietician, takes appointment, and visits
Insights	Traumatic experiences cause more than just a memory in the brain that will last forever if not treated	Parents and who is around the patient can have a very negative impact on her/him	The patient usually search for their own symptoms before professional counselling	A first reaction is to talk to a dietician and not a psychologist because of the stigma	A patient's first impression to a dietician is relief, as the dietician gives the ambient and environment of change
Needs	There is a need of talking about the traumatic experience to someone that could help ease the pain	The need to be isolated a bit mentally more than just physicallyThere	There is a need to know what is wrong with the patient and a need to dig deeper	There is a need to heal the traumatic experience before the eating behaviour	The need to change physically
Opportunity	Talking to a psychologist or a group of people that went through the same trauma	Having a place without the negative impacts or make the impact positive in the eyes of the patient	Creating an assessment form that can detect an eating disorder from questions	Introducing a psychologist before a dietician or together	Changing just physically will conclude with a relapse, the change should be mentally first

#### THE DURING TREATMENT

	ASSESSMENT	RECOMMENDATION	PLAN	UPDATES	REPEAT
Stakeholders	<b>*</b>			<b>ψ</b>	<b>ψ</b>
Actions & Goals	Patient completes assessment survey	Dietician recommends patient to visit a psychologist	Dietician plans the meal plan according to data given by patient	Dietician and Psychologist gets acquainted and aligned	After every milestone or step forward, repetition of the last 2 steps occurs (plan + Update)
Insights	A patient's first talk usually has a bit of lies in it as they are scared of judgment the way they had been judged before by others	A patient's impression on going to a psychologist is always thinking that they are "crazy" and that's because of the stigma	A patient's view is that when they start on a diet plan they will change their body's shape and everything on will be just fine	The patient needs to be aware of everything happens, even the information shared between the therapists	The patient will get used to something even if they don't like it or find it uncomfortable for the sake of changing their image and body.
Needs	The need to be honest	The need of psychological awareness	There is a need to know what is wrong with the patient and a need to dig deeper	The need to be aware on everything	The need to be more open and talk when something is bothering
Opportunity	Assessment questions that are done individually without pressure or supervision	A psychological therapist/ specialist should be introduced with the dietician since the beginning	The opportunity to include other kind of specialists and awarenesses	Show the progress and information shared to the patient	Having a space where the patient can say what they want, whenever they want

#### THE AFTER TREATMENT

	ASSESSMENT	UPDATES	DECISION	STAY ALIGNED
Stakeholders	₩ 🕳	<b>⊌</b> Ψ	<b>₩</b> • Ψ	<b>₩</b> • Ψ
Actions & Goals	Patient completes assessment survey again	Dietician and Psychologist gets aligned	Decision made by the patient and both therapist on ending the treatment or the need to continue	Stay aligned with patient with a session in the longer term
Insights	The patient will lie again to show that they have change to not show up as a failure.	The patient would end a relationship with their therapist if they felt like they're talking bad about them even if they were not	The patient will get used to something even if they don't like it or find it uncomfortable for the sake of changing their image and body	The patient most of the time skips the follow- ups and try to find another dietician as they're not satisfied.
Needs	The need to show success	The need to trust a specialist and therapist more	The need to know when to stop the treatment	The need to stay loyal to certain therapists and specialists
Opportunity	The digital world can make someone more honest as it hides faces and expressions	Digitalising the steps and conversations and showing everything to the patient	Reaching a certain milestone that is set by the patient	Follow- ups shouldn't be a long term, and it should be a feeling established by the patient





# Oeyra



#### DEYRA OFFERING

#### **OTHER SPECIALISTS**

The treatment path might need help from specialists other than psychologists and dieticians. Deyra connects a variety of them.

#### **DIETICIAN**

Registered Dietitians have an important role in Eating Disorder Treatment. They support patients through normalising a patient's relationship with food, as well as optimising their nutritional needs.

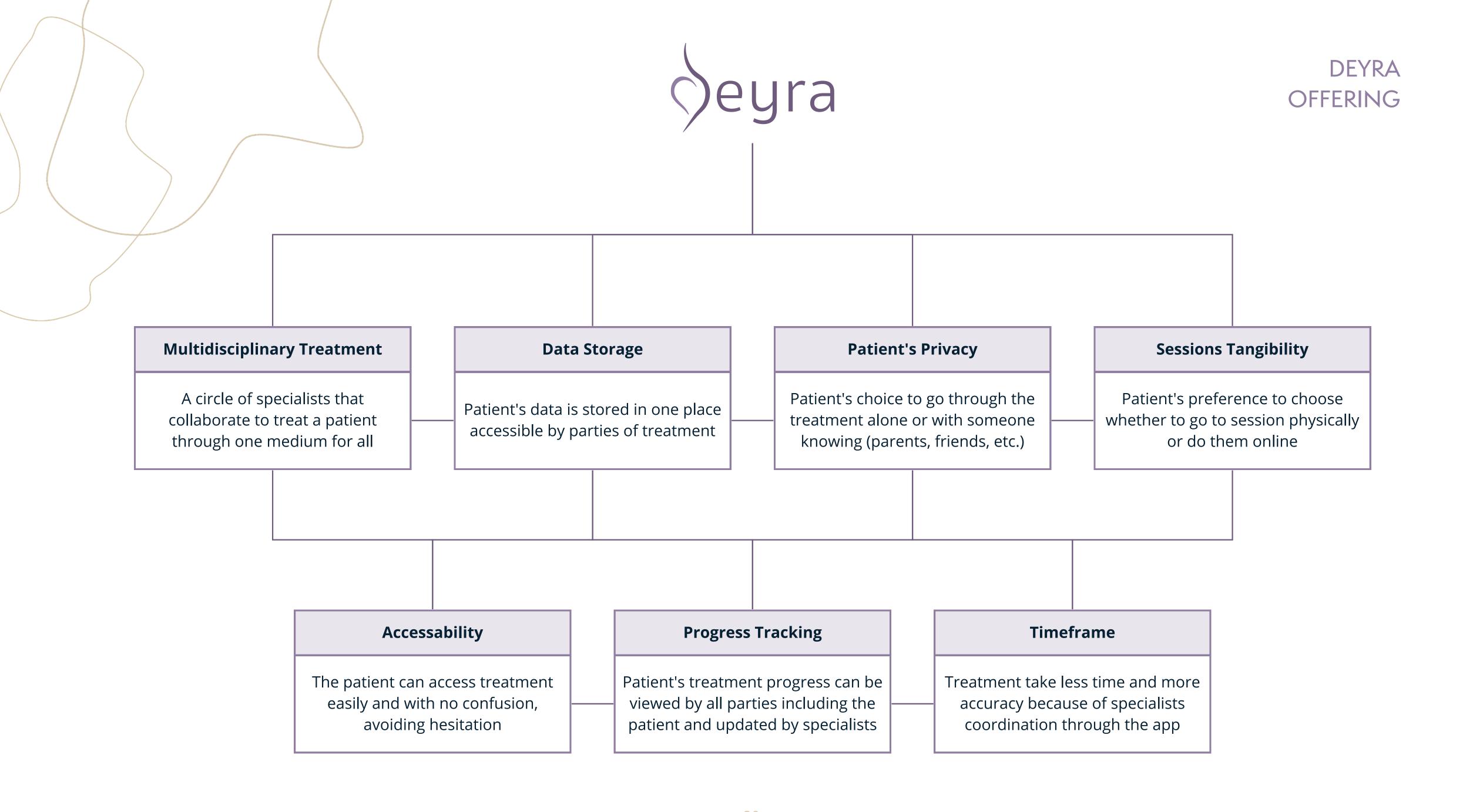
#### **PATIENT**

A patient of an Eating
Disorder needs a team of
experts to go through
treatment, one specialist
can't guarantee the patient
not relapsing.

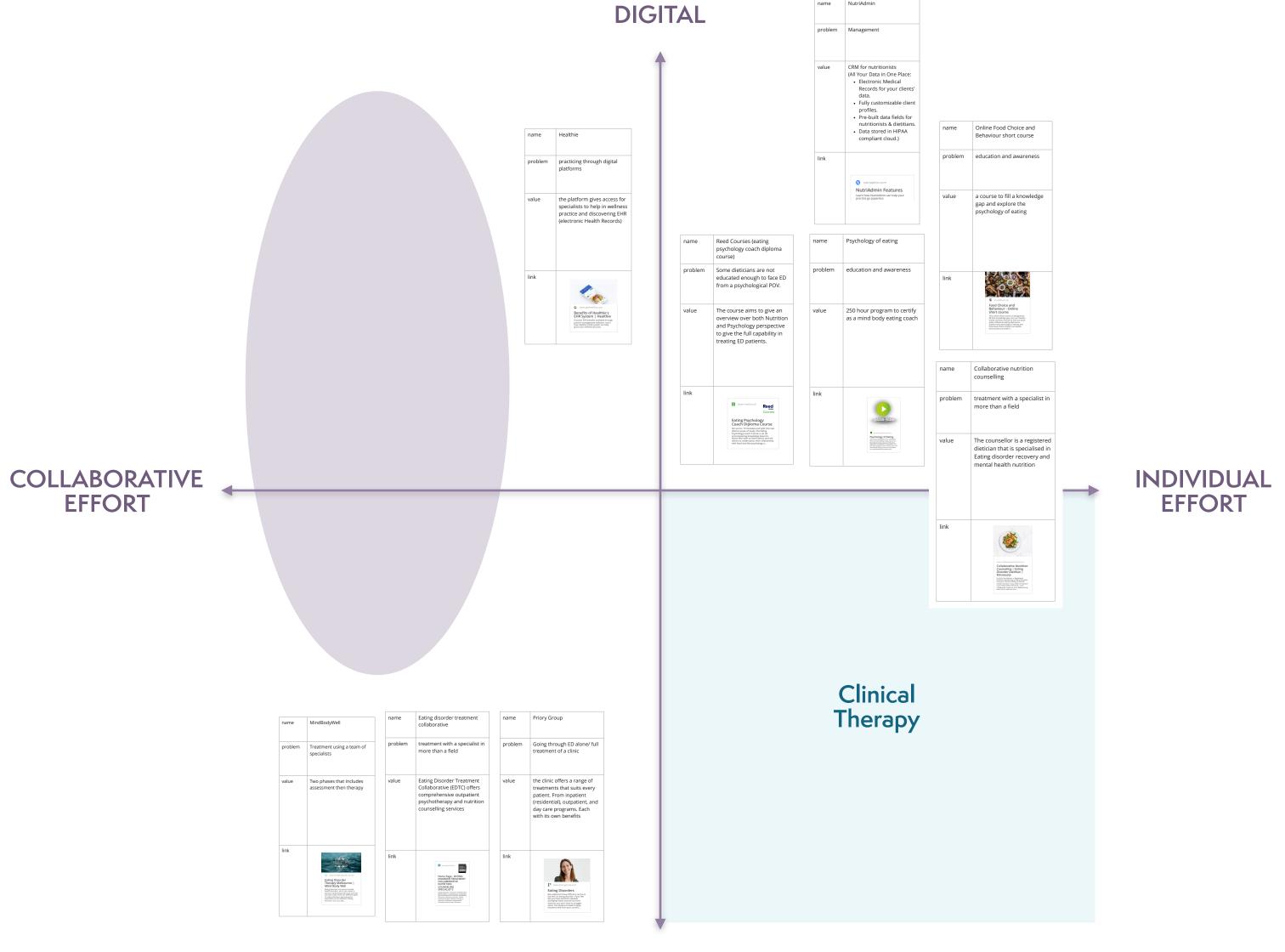
#### **PSYCHOLOGIST**

Psychologists have an important role in finding out the cause of an eating disorder in a patient. They would start to treat the psychological part of the problem before the physiological one.

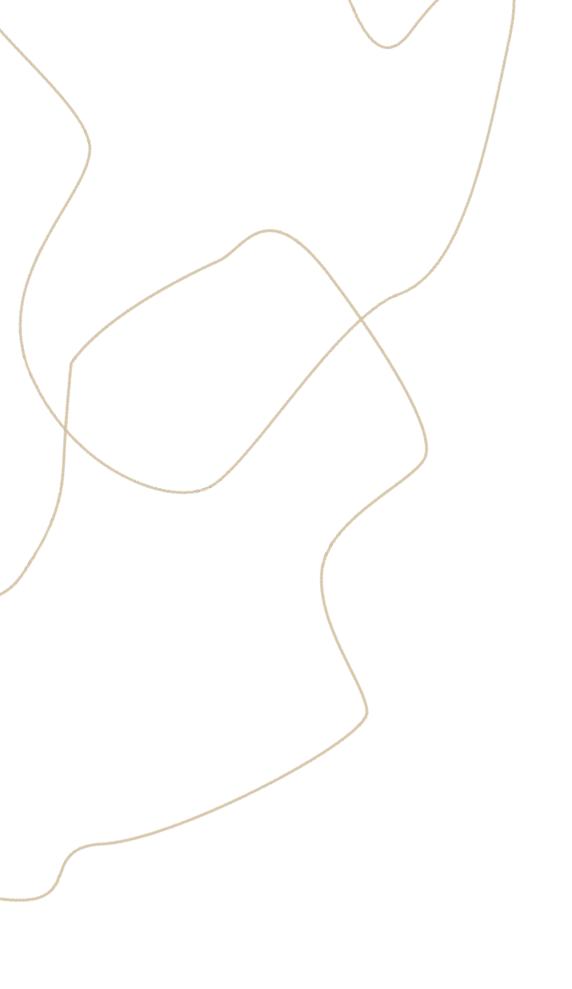




#### OPPORTUNITY



PHYSICAL Area of focus



# USER ANALYSIS

#### **SURVEY ANALYSIS**

53

RESPONSES

**SECTION I** 

Sociodemographic Data

SECTION III

Feelings

**SECTION V** 

Perceptions

**SECTION II** 

Well-being

**SECTION IV** 

Eating Behaviours



#### **SECTION I**

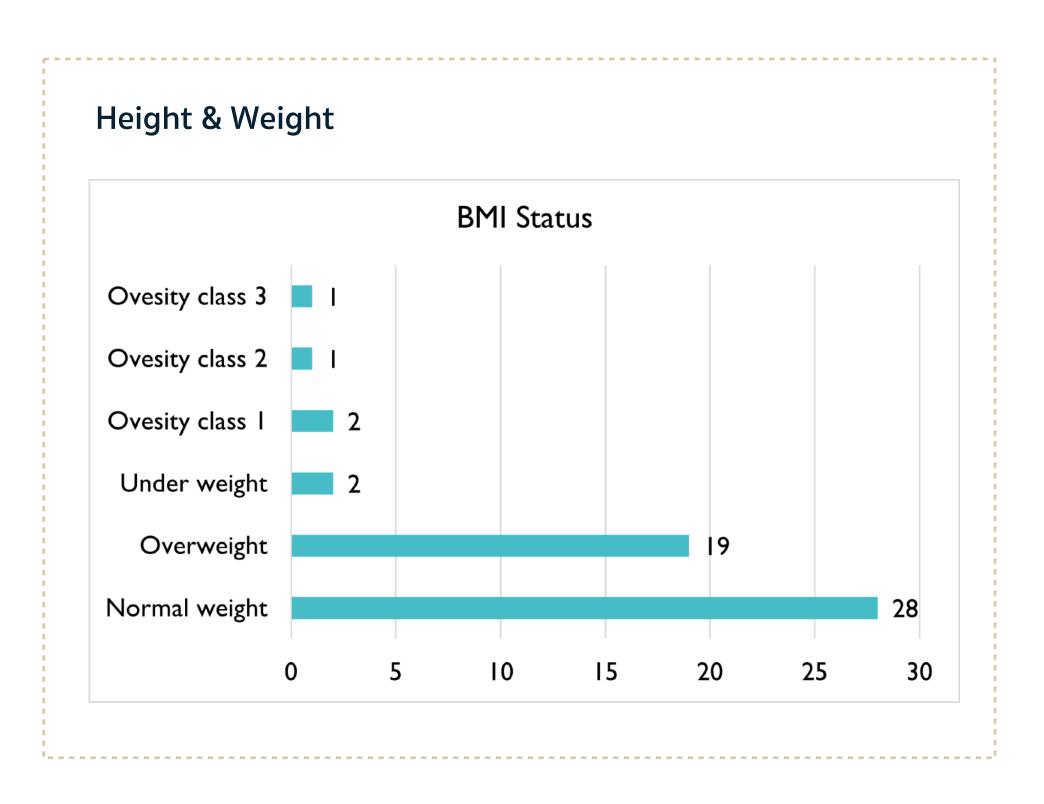
Sociodemographic Data

**94%** Lebanese **77%** Lebanon

Age Gender

**57%** 20 to 25 years old **51%** Females **28%** 25 to 30 years old

OTHER DATA
Religion, Civil status, Professional status



#### **SECTION II**

Well-being

Making up their	minds al	cout things
-----------------	----------	-------------

**36%** Some of the time

32% Often

Feel close to other people

38% Some of the time

26% Often

Feel useful

**40%** Often

26% Some of the time

Thinks clearly

43% Some of the time

**24%** Often

Deals with problems

40% Some of the time

34% Often

Feels optimistic about the future

38% Some of the time

24% Often

#### Been feeling relaxed

38% Rarely

32% Some of the time

**17%** Often

11% None of the time

2% All of the time

#### **SECTION III**

#### Feelings

How satisfied are you with your life nowadays?

26% Answered 7

21% Answered 8

How anxious did you feel the last few weeks?

**15%** Answered 8 & 7 & 5 **11%** Answered 9 & 4 & 3

How happy did you feel the last few weeks?

21% Answered 715% Answered 4 & 5

to what extent do you feel the things you do in your life are worthwhile?

**19%** Answered 6 & 5 **15%** Answered 8

would you say that most people can be trusted, or that you can't be too careful in dealing with people? (score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted)

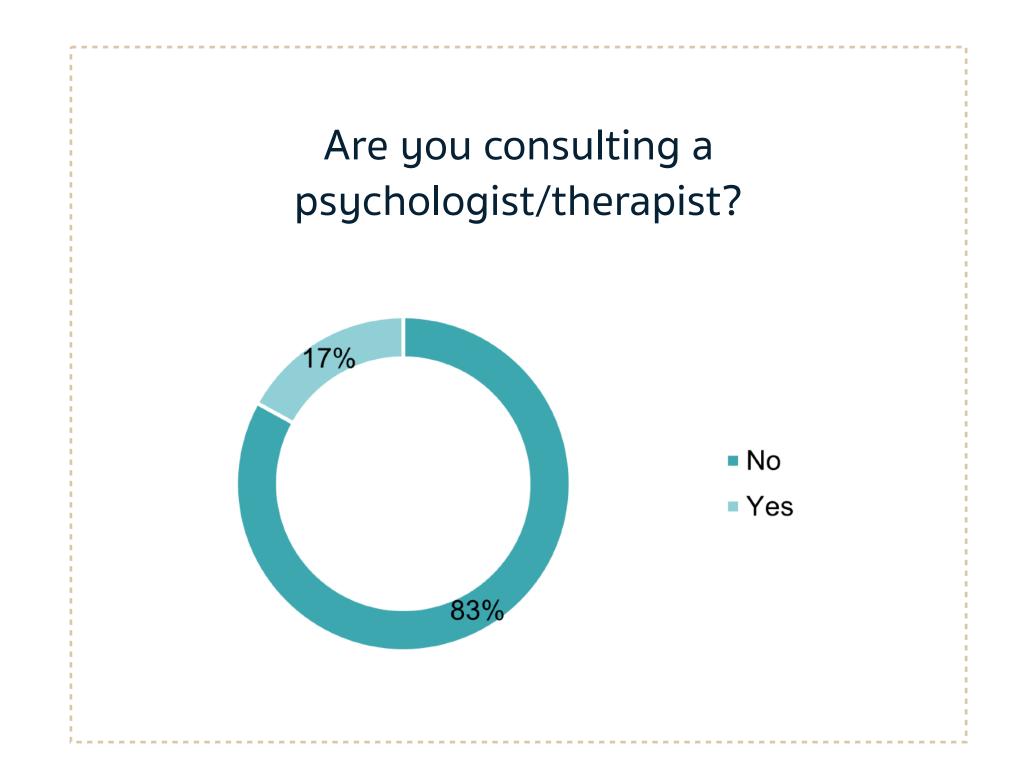
21% Answered 5

19% Answered 8

**17%** Answered 3

15% Answered 1

Feelings





#### **SECTION IV**

Eating Behaviours

### SCOFF QUESTIONNAIRE

### (S) Over the last few weeks, have made yourself SICK because you feel uncomfortably full?

The majority of survey takers answered this question with a No scoring a 72%

### (O) Have you recently lost more or less than ONE stone (6.35 kg) in a three-month period?

57% answered with a no, 21% answer with "yes, less than one stone (6.35kg)", and 15% answered with "yes, more than one stone (6.35kg)"

#### (F) Would you say FOOD dominates your life?

51% answered with No, 26% answered with Maybe, and 23% answered with yes

### (C) Over the last few weeks, did you worry you have lost CONTROL over how much you eat?

The majority answered with a No scoring 66%

### (F) Do you believe yourself to be FAT when others say you are too thin?

74% answered with a No, while 26% answered with a yes

#### **SECTION IV**

### **Eating Behaviours**

## The last question was an open field for the survey takers to express freely what they think about the psychological and nutritional system in Lebanon.

or eating disorders"

"I think dieticians focus more on the calorie deficit than on the patient's mental well-being. They push them to not cheat on their diet instead of understanding their body and mind."

"Frankly, I don't trust them at all. At the end, it is another business to deal with. Needs lots of improvements"

"Due to the economic, financial, safety and many other issues in Lebanon, the mental health of the citizens is deteriorating. Most people no longer have access to healthy food and nutrients because of the lack of availability and the insane increase in prices of chicken, meat and all kinds of food"

"I have been on a diet all my life and never once a dietitian recommended for me psychological help but the last dietitian helped me realise that i have a stress eating problem"

"They are related to each other"

"Definitely requires to be updated with our community needs"

"People should pay more attention to their behavior and their kids' behavior and eating patterns, especially in

"this is why there are now nutritionists who

psychology and about how diet culture affects

practise intuitive eating, those care about

adolescents suffer fror orthorexia.."

"I think that they shoul

"Psychological system good therapists I know for nutritional system, people I met were gre "I think better cooperation should be the norm"

"I believe that a combination of psychological erfect for each

"They should be in contact some of the times when the patient is facing difficulties"

nese express somatic or nore socially fering from

ng an eating

common mental disorders such as depression may manifest their condition through stomach aches or migraines, making them more likely to visit their family doctor to seek treatment rather than a mental health professional. Family doctors or GPs, being unaware of the actual cause of the individual's complaint, may resort to prescribing medication which does not address underlying mental health problems."

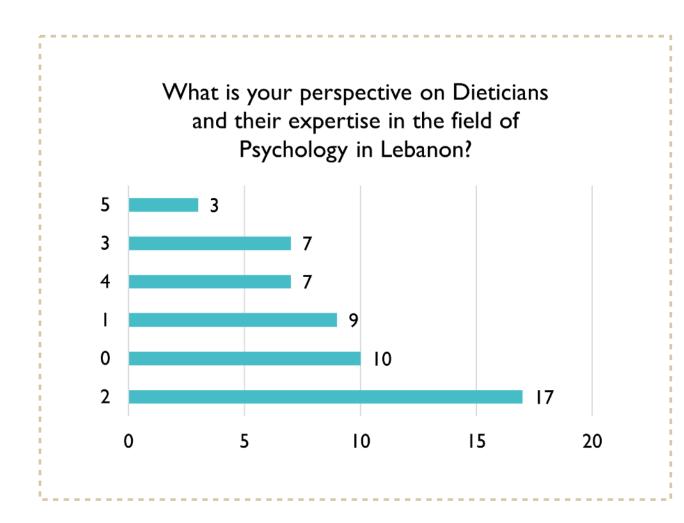
"People feel comfort in food and when it's taken away from nutritional systems they needs psychological ppl to lead them the right way"

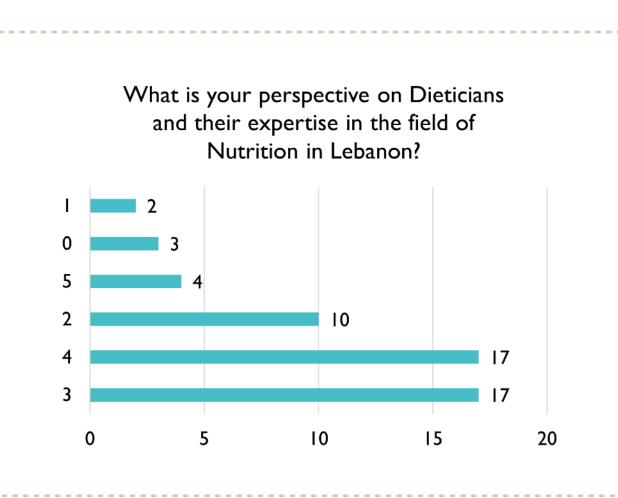
"I believe dieticians are doing a great job.
Lebanese people in general they have the
tendency to overeat especially in occasions like
family gatherings. As for psychology Lebanese
are improving in this field that is to more serious
approaches"

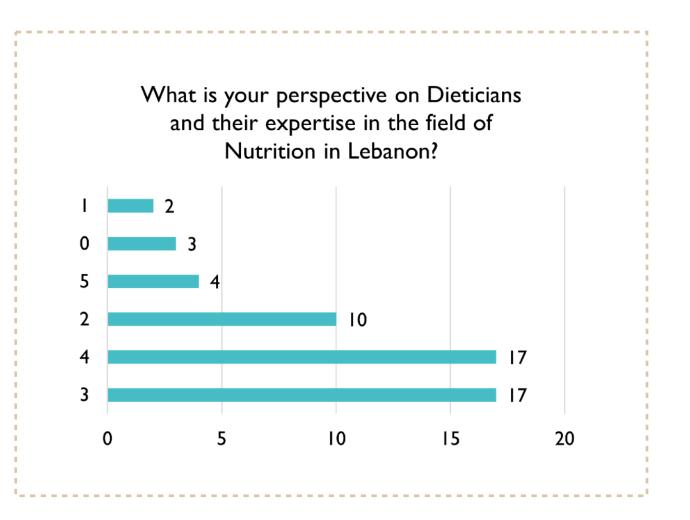
"I've seen a lot of dieticians in Lebanon when I was younger (14-17), and they all gave me a very strict diet, telling me exactly what to eat and not actually teaching me how to eat or how to lead a healthy lifestyle. This led to more restrictions and then binging and gaining all the weight back. I don't think dieticians in Lebanon try to find the problem or roots behind the weight gain or obesity. Since then i've lost the weight by seeing a dietician in Europe and the first session is actually 95% your background, your lifestyle, asking questions about your mental health and what lead to this point in your life"

### **SECTION V**

Perceptions

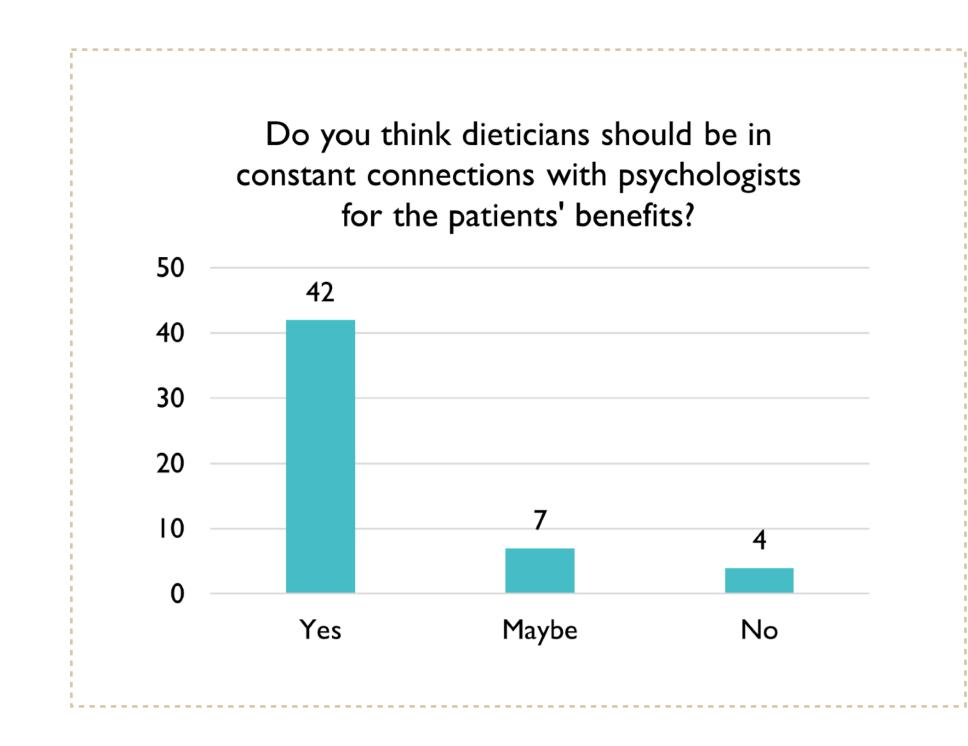


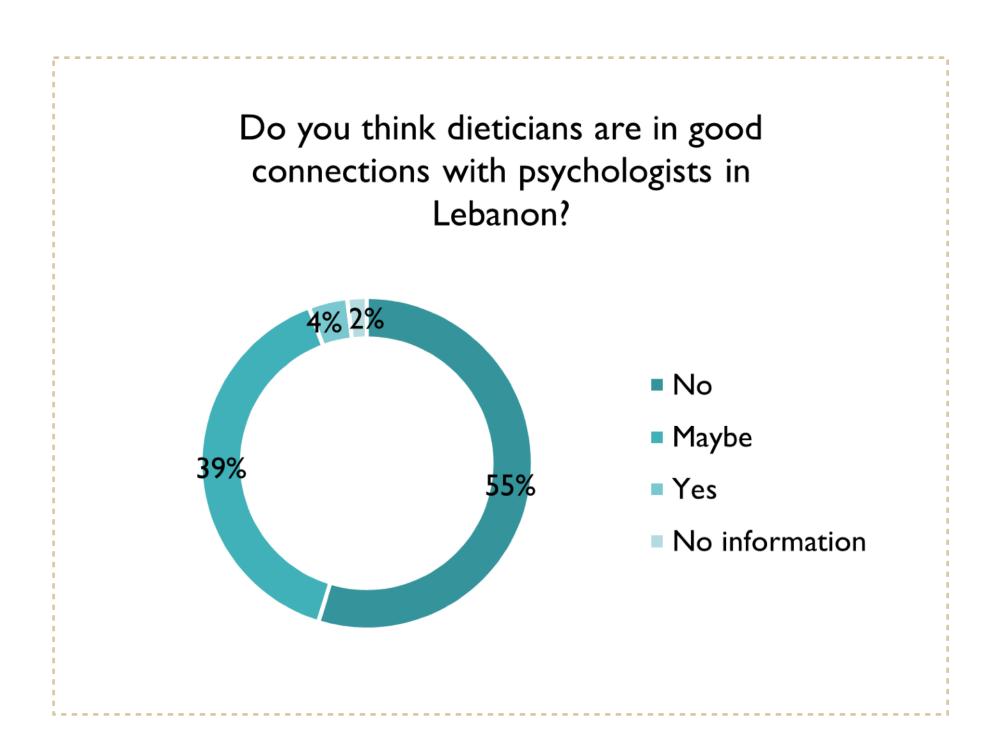




Do you think Dieticians in Lebanon are qualified to address psychological disorders?

43% Answered Maybe36% Answered No11% Answered Yes





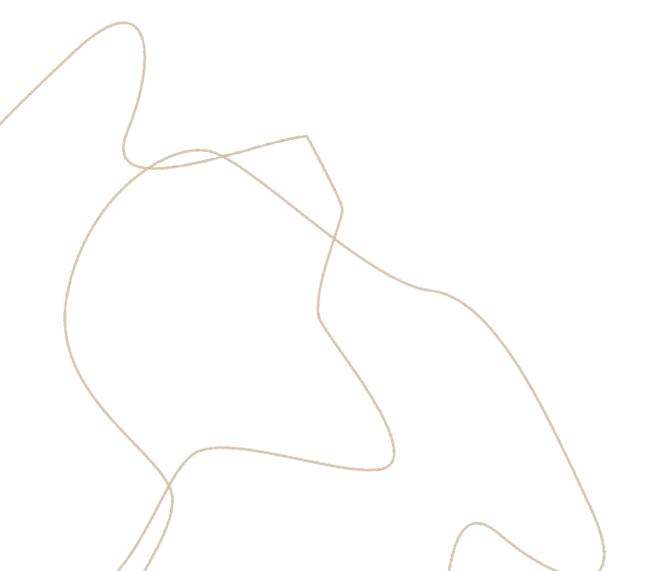




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### INTERVIEWS

(5 Dieticians & 5 Psychologists)



# **DIETICIANS**INSIGHTS

## 01 DIETICIAN RACHELLE

- Eating disorder is a multi-disciplinary work, psychologists - psychiatrist dietician is the best triangle and mix for a good treatment plan
- There is an assessment done for the patient in the beginning that includes his background, eating patterns, etc. that results in what the dietician should know (if they are suffering from a disorder or not) and they advise to see a psychologist/ psychiatrist
- All patients are referred to the dietician by a psychologist/ psychiatrist
- The approach of treatment changes once the dietician knows about the eating disorder, but the work of treatment goes 30/70% and in parallel between both dieticians and psychologists

## 02 DIETICIAN OLIVIA

- The hardest thing in the first month is that the patient continues with the treatment
- In Lebanon "there should be" a part where i need to do a medical background check and to try to cooperate with a psychologist
- background if the patient says or shows something, if not they can know from the women's period (it's not regular) and the shape of body shows too
- The system between psychologists and dieticians is a disaster, there is no cooperation, and the media is destroying it more and more (by trends)
- "i feel that we are all mentally sick"

## 03 DIETICIAN KAREN

- Steps after ED diagnosis: Refer to psychologist (in developed countries, not Lebanon)
- Ideal scenario: psychologist in team or referral. However psychologists are seen as too much or overkill in Lebanon. You need a psychologist to help. If there is a team dietitian talks to psych, if referral than parents talk to psych
- Psychologists and dieticians should have parallel work (coordinated) in observing the patient (how they are feeling, weight, are they happy)
- People are hesitant in going to a psychologist, they think they shouldn't go because they are not sick.

# 04 DIETICIAN SARAH

- Lebanese patients reject and do not accept getting help from psychologists, they think they are sick if they consult with a psychologist
- Psychologists should engage clients before starting a diet, to figure out the causes of the ED (ex: bullying)
- Social media/internet can affect a person. Seeing a psychologist should be normalised
- Treatment depends on each case,
   there are gaps between patients and
   psychologists

# 05 DIETICIAN REINE

- First step is to refer to a psychologist, can't work with patients if not psychologically treated
- Usually she would give choices of psychologists from the centre. But she needs to convince patient to seek psychologists before referring them.
- There is contact with psychologist, might supply the eating report to give the psychologist full details. Also, necessary contact is necessary from psych to dietitian to simplify the dietitian's work. Contact usually is through phone or visit
- Gaps and problems include not liking psychologist or too costly, not wanting to accept patient has psychological issues. Also, problems might occur from psychologist side if they are not qualified enough to treat patients with eating disorders

### PSYCHOLOGISTS INSIGHTS

## 06 PSYCHOLOGIST GEORGES

- In psychology there is limits as we work on mental health, everything physiology we don't work on it (out of limits) because we didn't study it and we didn't work on it
- we look for the factor and pathology
  that caused the disorder before
  referring to the dietician, and
  sometimes we don't refer to dieticians
  since we can work on the factor as
  therapy
- The contact happens with the dietician (the dietician is the psychologist's friend) through a phone call and usually we tell the patient and ask for consent to see a dietician and I don't have a dietician list to go through for contacting

## 07 PSYCHOLOGIST CLAUDIA

- In Lebanon, there are a few anorexia cases but the trend is bulimia and there is a lot of binge eating due to stress (lockdown, covid, financial crisis, lack or water & electricity, lack of bread, oil, Beirut blast, explosions..etc)
- It is always psychological behind the ED, unless it is a physical issue
- the whole "circle" works when the patient is hospitalised or if there is a centre that is made for people that are suffering from ED
- Gaps between dieticians & psychologists is there is no connection that makes them work together in parallel and the plan is not organised

# 08 PSYCHOLOGIST CHRISTINA

- What happens is that: when we do an assessment we find out that the person is dealing with an eating disorder, and there are standardised questions we ask the patient as well
- Of-course we have collaborations with dieticians so we can't just work purely psychology without dieticians as they work on the quality of the food (we need their expertise in that field) but we work on the commitment and behaviour to stick to therapy and the thoughts that is leading to certain behaviours
- we don't talk to dieticians for back-up but we do collaborations and the patient talks to the dietician directly, if the dietician had any warning signs she/he talks to us directly

# 09 PSYCHOLOGIST CARLA

- A therapist cannot work alone in the treatment of an ED. A therapist requires the help of other professionals to ensure the wellbeing of the patient, which is always the end goal. A dietician is one of those professionals that therapists reach for when they are presented with a case of an ED
- ► It is incredibly important to always have a multidisciplinary team ready for action, to prevent such relapses
- Therapy can last from a few months to a few years. Eating disorders are not easy on the patient especially if they were hospitalised, therefore are not the easiest to overcome when it comes to mental illness. But the success rates are high

# 10 PSYCHOLOGIST JOANNA

- A psychologist will eventually need the help of a dietitian for treating eating disorders. There should be a communication between the two to treat ED
- Referrals are gained through experience, meetings and connections
- Joint effort with people with the same objective, people first not to take it as a business
- Topic is stigmatised in Lebanese culture, no one truly understands ED.
   People go to dieticians first because of lack of psychological awareness. If Dietitian's ethics are good, they should refer to specialised therapists to diagnose and follow up patients

### **PERSONAS**

THE PATIENT

MARIA ABBOUD

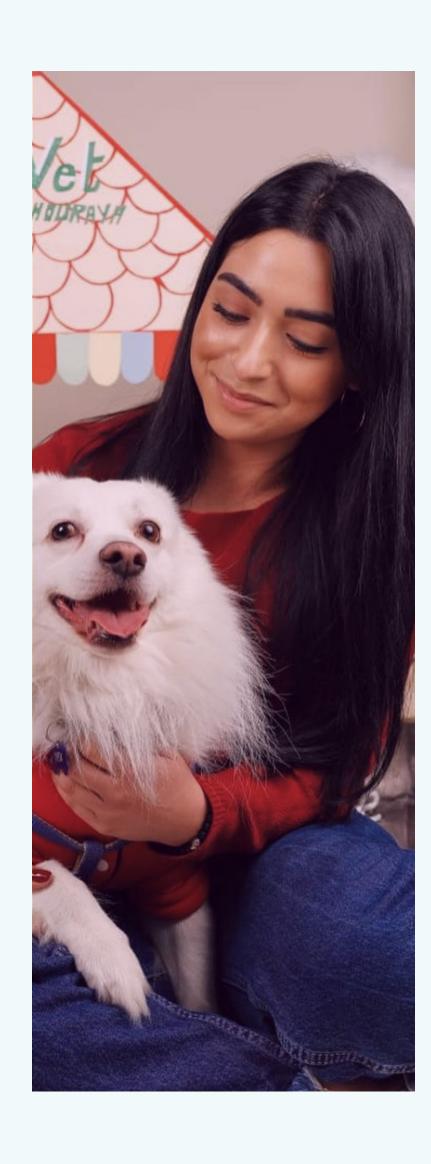
2 THE DIETICIAN
OLIVIA TURK

THE PSYCHOLOGIST

ELIAS HAKIM



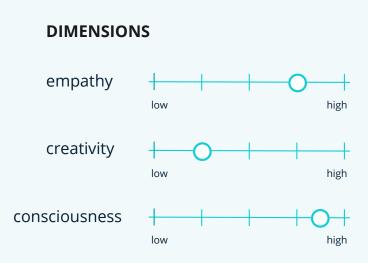




### Maria Abboud

BIO
21 y.o
Lebanese
Living in Akkar (North of Lebanon)
family social class: low-medium

Maria is an only child of a very closed family that lives in a village far north of Lebanon. Her father works as an accountant and her mother is a stay-athome wife. Maria is attending her second year in the university as to become a Veterinarian. She is a very ambitious girl that likes to try new stuff and loves adventures. She likes going out with her friends as well as staying home alone to watch series and movies, and to take care of her plants. Maria is very conscious about everything, including herself and her body and she always pay attention on what and when she eats.



"I know what is wrong with me but i'm scared of letting people know, especially my parents"

#### **GOALS**

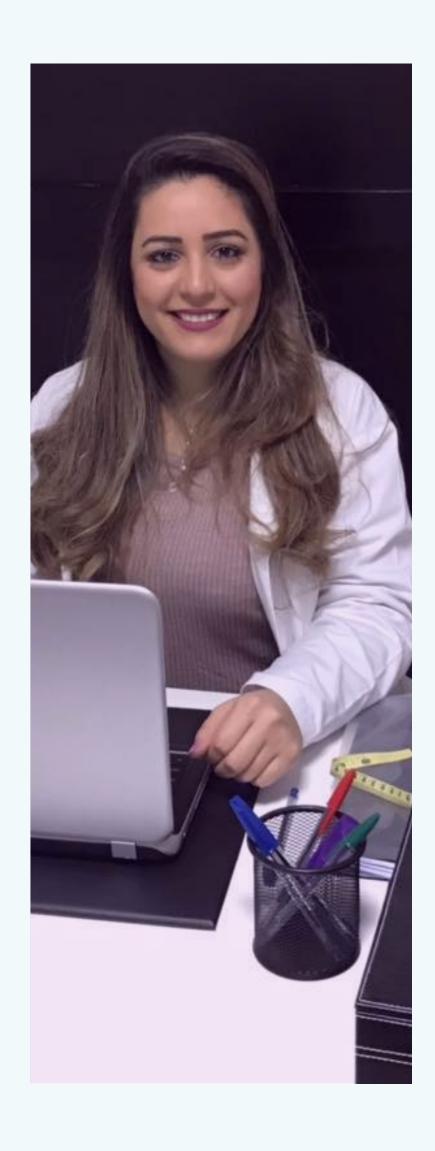
- Become a veterinary
- See progress of the growth of her plants
- To have a routine in her life
- Healthier lifestyle
- Get out of the country to continue with higher education
- Travel around the world

#### **NEEDS**

- To train her voice more, she likes singing
- To spend more time with her father as he's always working
- To move out of her family's house to feel more independent

#### **FRUSTRATIONS**

- Not being able to regulate her lifestyle concerning food and working-out
- Not being able to find a trusted person to share with her life steps
- Not being independent enough to seek for the help she wants and needs



### Olivia Turk

BIO
32 y.o
Lebanese
Living in Nehme (South of Lebanon)
family social class: medium

Olivia is a registered dietician that studied nutrition late in her twenties, she started her career in Nutrition since she really loves it and relates herself to it very much. She has studied psychology in eating as well during her years of degree because of her own interests in the subject. Olivia believes that every dietician should know at least a bit of psychology in order to treat the patients well and that it is the base of everything. She started her own clinic since 2 years and she is giving her full attention and time to it since.

### 

"I try to know as much as I can about psychology but I can't be half a specialist in psychology"

#### **GOALS**

- Become a well-known dietician in Lebanon
- Get out of the country to to treat abroad patients
- To have patients from around Lebanon
- To collaborate more with other specialists in the country
- Travel around the world
- Learn more about psychology and never ending her education levels

#### **NEEDS**

- To train her voice more, she likes singing
- To spend more time with her father as he's always working
- To move out of her family's house to feel more independent

#### **FRUSTRATIONS**

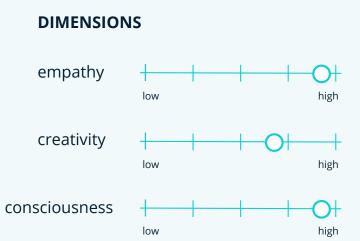
- Feeling that Lebanon is limiting her career to a certain point
- Not being able to give her 100% in online sessions
- Not being able to help those in real need of help



### **Elias Hakim**

BIO
34 y.o
Lebanese
Living in Jounieh (Mount of Lebanon)
family social class: high

Elias is a psychologist who likes to help young people with various stories. For him, those young people are important and has to be successful. Therefore, he concerns a lot about them. Knowing that there are still a lot of the Lebanese population who are not educated about mental health, makes him want to help those who are buried under the stigma. Elias is also very passionate in helping people that are suffering from Eating disorders and traumatic experiences that led to it so they can live a better life and a healthier lifestyle.



"Mental illness is perceived as something to be ashamed of, something to be hidden and never talked about."

#### **GOALS**

- Become a well-known psychologist in Lebanon
- Get out of the country to to treat abroad patients
- To have patients from around Lebanon
- To collaborate more with other specialists in the country
- Specialise in traumatic experiences and eating disorders
- Raise awareness about psychology in Lebanon

#### **NEEDS**

- To maintain his own mental and physical health
- To spend more time in giving mental health awareness
- To get to know more people and connections in the field

#### **FRUSTRATIONS**

- Lebanon is limiting his career because of the stigma on psychology
- Not being able to give his 100% in online sessions
- Not being able to help those in real need of help

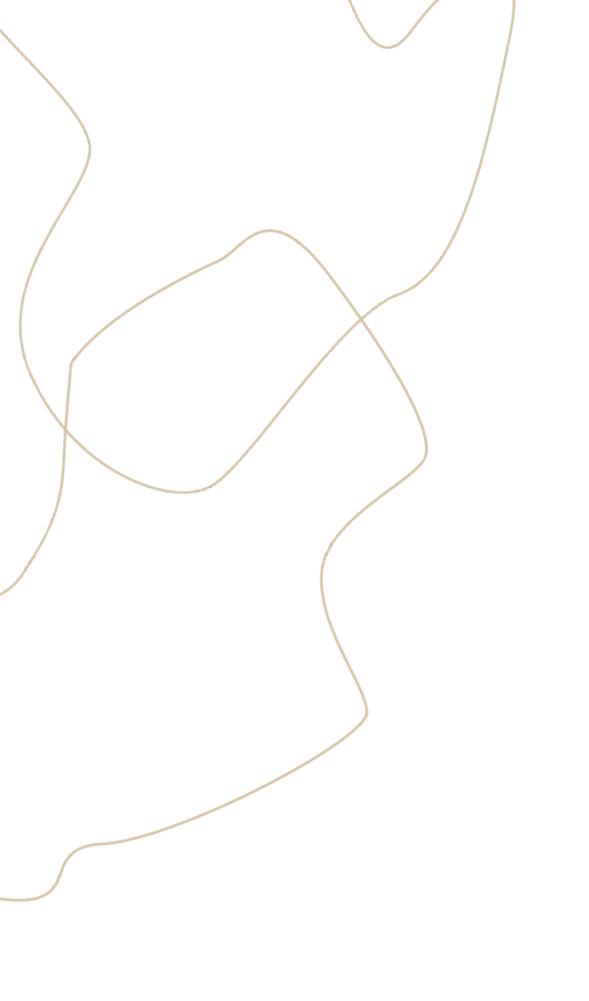


The city and society have **changed their outlook**, they have changed their perspective from which things are seen and the perspective on how to **deal with problems and issues faced**. The mental well-being is considered one of the most important health issues, the new generation have widened and opened the people's eyes and made it **clear that they need the psychological help**, that everybody needs it.

Following this purpose, a large part of their power is conferred to all those categories considered socially fragile, which can now act in their own good, **making decisions on the future development of the city**.

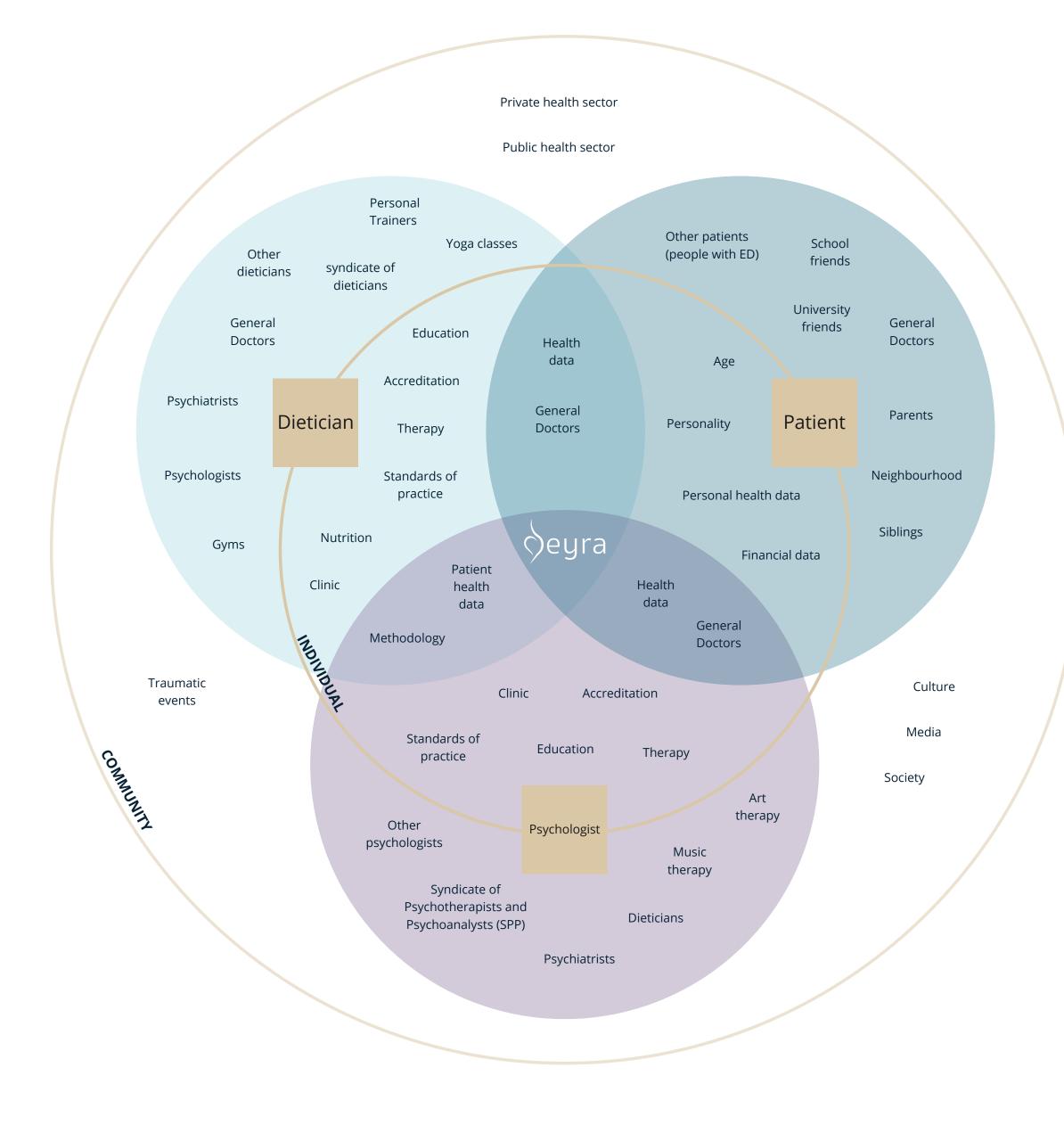
To make **treatment accessible to everyone**, many pillars on which the society lived in is based, from strict parents to fear of speaking, from economic crisis to self-esteem crisis, have been **simplified**. The steps taken into treatment.

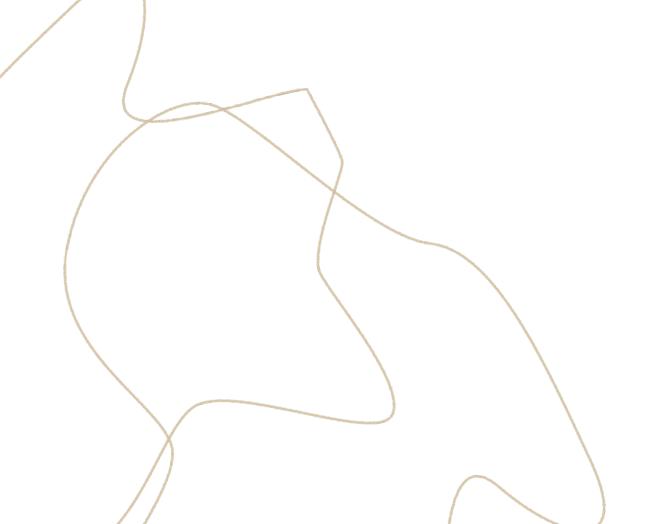
The journey of healing is now easier than ever, available, and reachable by anyone, no matter the circumstances.



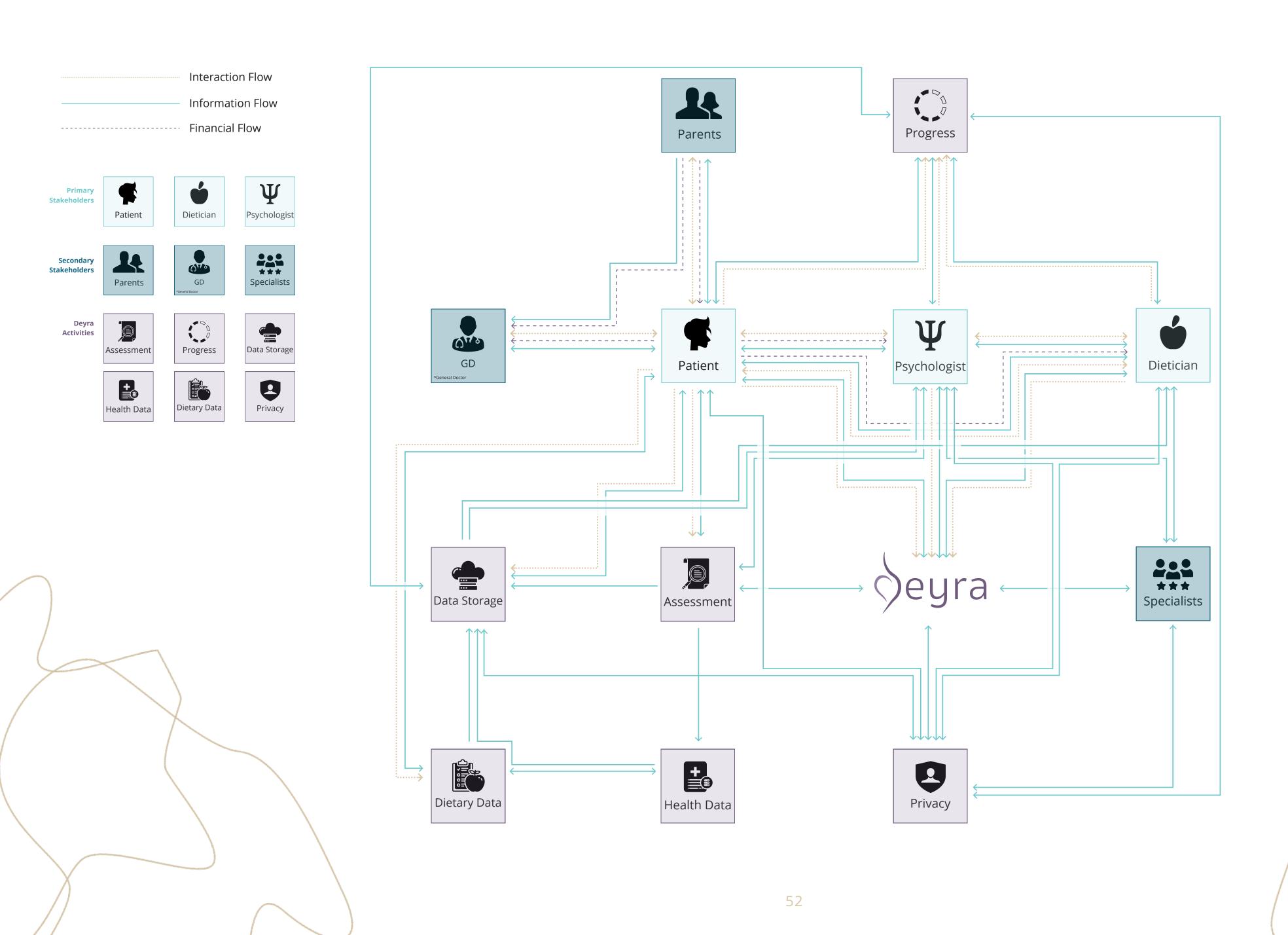
# SYSTEM ANALYSIS

### **ECOSYSTEM**









### SYSTEM MAP





# DEYRA JOURNEY MAP

### THE PROBLEM

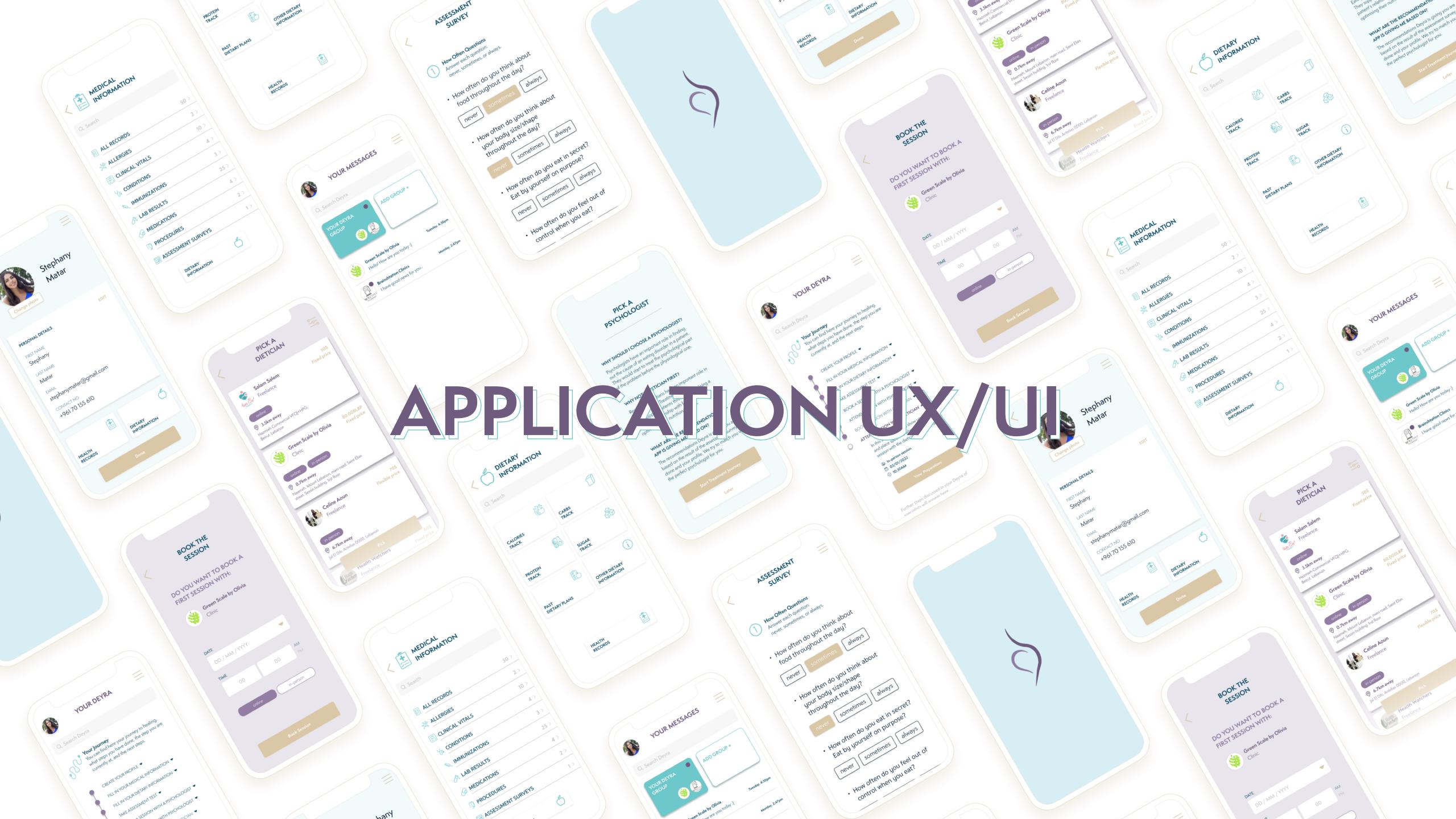
	TRAUMATIC EVENTS	IMPACT	REALIZATION		DECISION MAKING		FINDS "DEYRA"
Stakeholders	# 14				<b>#</b>		
Actions & Goals	Remembering a traumatic event that happened to the patient	The patient is being criticised from surroundings		Failing more than once in dieting and seeks for help	Influenced by external factors and search for a dietician		Download Deyra application and starts treatment
Insights	Traumatic experiences cause more than just a memory in the brain that will last forever if not treated	Parents and who is around the patient can have a very negative impact on her/him		The patient usually search for their own symptoms before professional counselling	A first reaction is to talk to a dietician and not a psychologist because of the stigma		A patient that has strict parents and that does not understand him/her will seek for ways to get treatment that is not visible to the parents
Needs	There is a need of talking about the traumatic experience to someone that could help ease the pain	The need to be isolated a bit mentally more than just physicall		There is a need to know what is wrong with the patient and a need to dig deeper	There is a need to heal the traumatic experience before the eating behaviour		The need to do the treatment in hiding mode and without anyone knowing
Opportunity	Talking to a psychologist or a group of people that went through the same trauma	Having a place without the negative impacts or make the impact positive in the eyes of the patient		Creating an assessment form that can detect an eating disorder from questions	Introducing a psychologist before a dietician or together		Creating a path where the patient can choose either to be physically present or not

### THE DURING TREATMENT

	DATA INPUT	ASSESSMENT		PSYCHOLOGIST RECOMMENDATION	P S Y C H O L O G I S T B O O K I N G		P S Y C H O L O G I S T S E S S I O N		
Stakeholders	<b>#</b>			<b>₽</b> Ψ		<b>₽</b> Ψ		<b>₽</b> Ψ	
Actions & Goals	Adding the patients personal data to the app	Patient completes the app assessment survey		The app provides the patient psychologists recommendations		The patient books his first session with a psychologist		Patient has the session with psychologist	
Insights	The patient can get overwhelmed by the specialist if they were asked too many questions about their past	Patient's assessment form is a very stressing thing for them to do, the less pressure they have on doing it the more honest they will be		Patient's judgment on how to start with treatment is blurry from other people's opinions, so they will always choose to go on with a dietician first		A patient can get pressured and stressed when booking their first ever session with a psychologist		A patient's impression on going to a psychologist is always thinking that they are "crazy" and that's because of the stigma	
Needs	The need to have all of the patient's history in one place	The need to be honest		The need to see a psychologist first that knows the level of severity of ED the patient has		The need to book a psychologist without a lot of questions being asked		The need of psychological awareness	
Opportunity	Putting the patient's history in one place and enabling access to it by specialists that are treating the patient	Assessment questions that are done individually without pressure or supervision		The app suggests psychologists that are treating the level of severity the patient has		Minimising the questions and steps to book a psychologist session		A psychological therapist/ specialist should be introduced with the dietician since the beginning	

DIETICIAN RECOMMENDATION		DIETICIAN SESSION		ALIGNMENT & UPDATES	REPEAT			
Stakeholders	<b>\$ • \P</b>				<b>♥ •</b> Ψ		<b>₽</b> • Ψ	
Actions & Goals	Psychologist recommends patient to see a dietician in parallel		Patient has the session with psychologist		Dietician and Psychologist gets acquainted and aligned and patient sees updates		After every milestone or step forward, repetition of sessions and updates occur	
Insights	A patient getting validation, confirmation and reasons from a psychologist to see a dietician is better than seeing one for the wrong reasons		A patient can have a hard time in choosing the dietician they would feel comfortable with		The patient needs to be aware of everything happens, even the information shared between the therapists		The patient likes to be assured that all specialists treating them are aligned and are accepting each-other's steps	
Needs	The need of an expert validation		The need of knowing how and who to choose		The need to be aware on everything		The need to not get confused in between more than one specialist	
Opportunity	The opportunity to give patients options on what is better and more convenient for them		The opportunity that the app gives the patient a variety of dieticians to choose from and in another way recommendations from their psychologist	56	Show the progress and information shared to the patient		The treatment from every party should be accepted by the other party, if it was declined a reason should be specified	

	ASSESSMENT		UPDATES		DECISION		STAY ALIGNED	
Stakeholders	<b>₽</b> • Ψ		<b>♥ •</b> Ψ		<b>♥ •</b> Ψ		<b>♥ •</b> Ψ	
Actions	Patient completes assessment survey again		Dietician and Psychologist gets aligned		Decision made by the patient and both therapist on ending the treatment or the need to continue		Stay aligned with patient by staying updating through the app	
Insights	The patient can feel changes during filling-out the assessment form, even before seeing the results		The patient would like to stay updated on what the specialists are deciding		The patient would like to decide for themselves after knowing what the specialists decide		The patient would get more satisfied with the treatment knowing that their specialists are up-to-date with them, preventing relapses	
Needs	The need to feel success in treatment		The need to know more details about the specialists decisions		The need to be independent from specialists decisions		The need to stay loyal to certain therapists and specialists	
Opportunity	Asking the same questions or giving the same assessment survey the patient started with		Digitalising the steps and conversations and showing everything to the patient	57	Giving an opportunity to the patient to decide on whether they think they should end the treatment or not, and ask questions		Follow-ups are now more flexible using the app to ask quick questions and be upto-date with the patient and vice-versa with the specialists	



### Platform

#### **PROFILE**

The user fills in their profile starting with their personal details

The user has more than one way of **signing in**, and he can **create an account** easily

The user fills in their dietary & Medical information or just uploads documents

#### **ASSESSMENT**

The application gives indications and information before the assessment begins

The user **chooses the**answer easily as the app
offers multiple choices
and yes/no answers

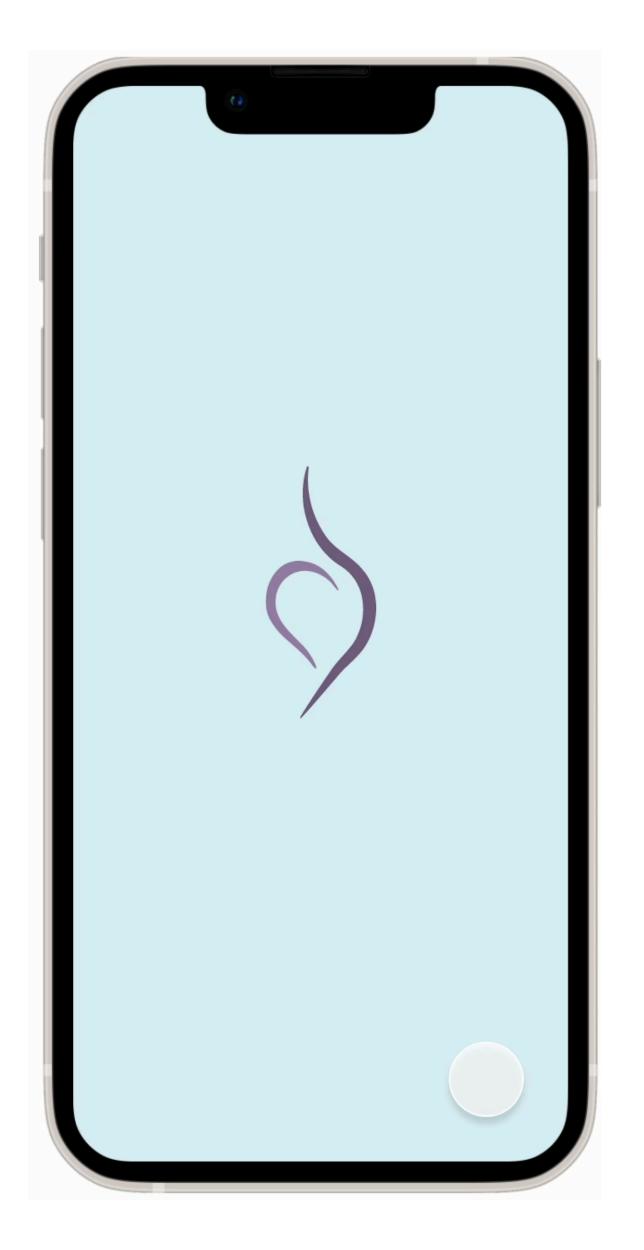
The app indicates the success of assessment filling & reminds the user with information

#### PICK A PSYCHOLOGIST

The user is **offered information** on why
choosing a psychologist
first is important

The user is offered a to choose time and date of the session, with a confirmation message

The user is offered to contact or visit the psychologists' website before booking a session



### Platform

#### PICK A DIETICIAN

The user is offered dietician recommendations by the psychologist in treatment

The user is offered a to choose time and date of the session, with a confirmation message

The user is offered to contact or visit the dieticians' website before booking a session

#### HOMEPAGE/ TREATMENT PATH

The user can **see their track** instantly upon
opening the app

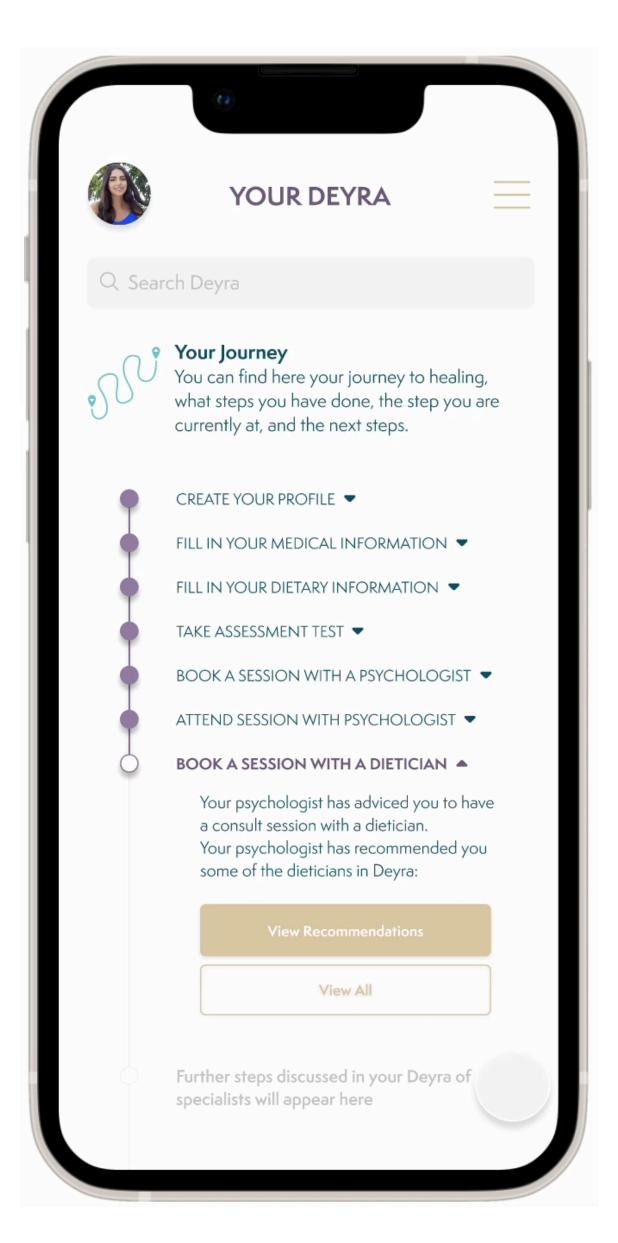
The user is **always**reminded by the app on
the session's details

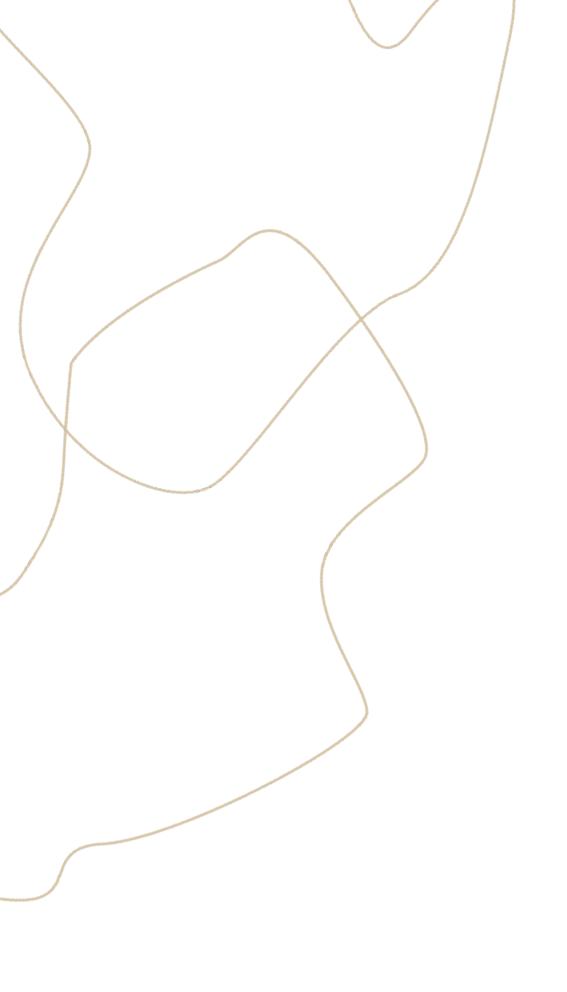
The The user can be **prepared for a session** before attending

### MENU/ MESSAGES

The user can **navigate through the application**easily and fast using the
drop down menu

The user **send and receive messages** to either one of their specialists or both of them grouped, for easier communications

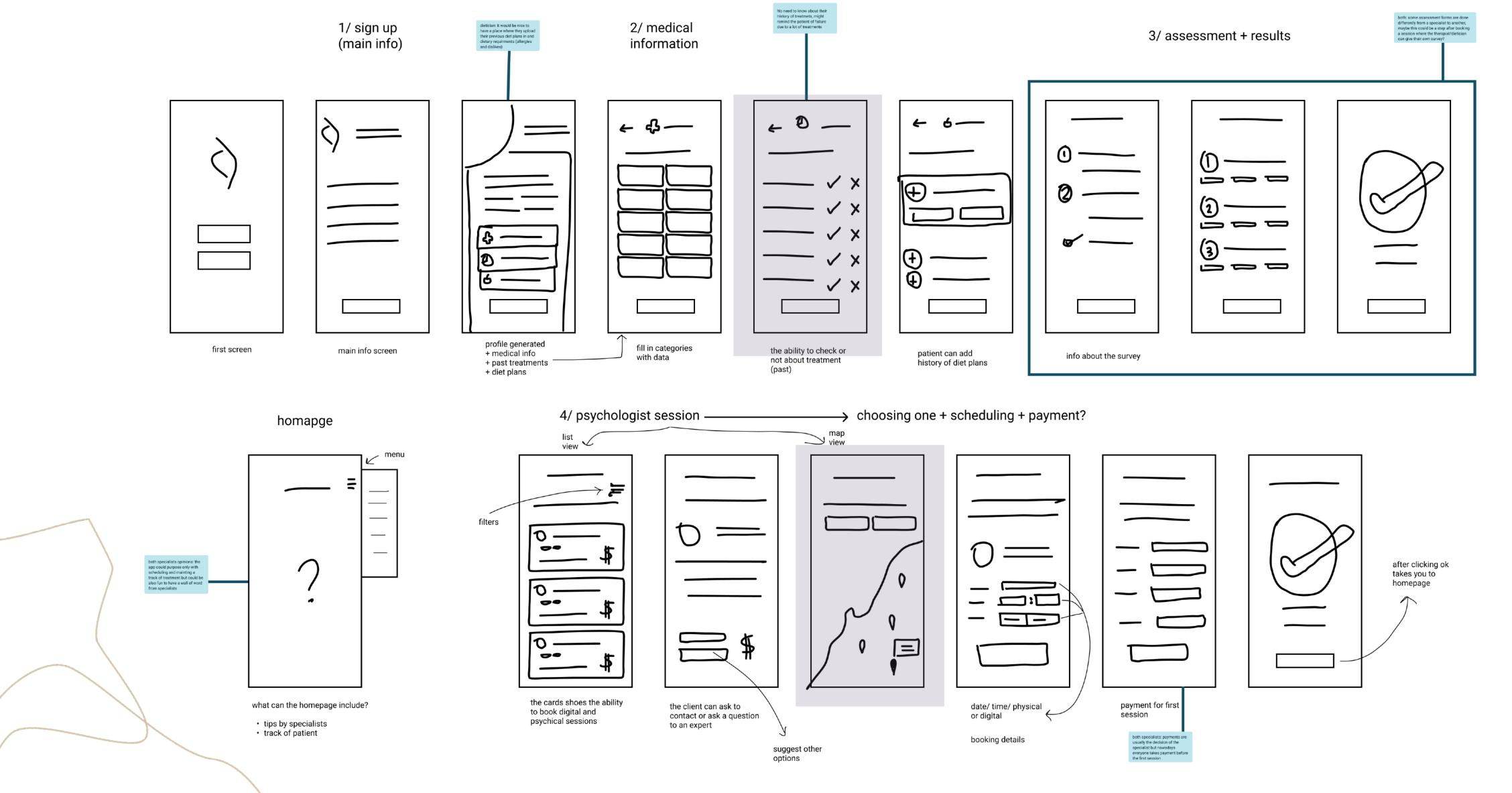




# TESTING



### Testing



"The application has a very smooth path, and the way that makes you go through the therapy makes it easier for you to not overthink the steps and what to do next"

"I found it very user friendly, and everything I had as for my history in medical records in is one place"

"The application gives you some sort of independency where it gives you recommendations but at the same time lets you be your own person and choose from the rest of the list"

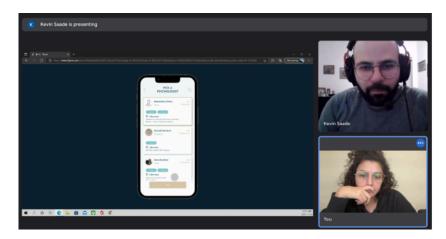
"I like the way the application recommends psychologists and dieticians based on the assessment done and my profile, I find that very helpful since I always struggle to find the perfect fit for me"

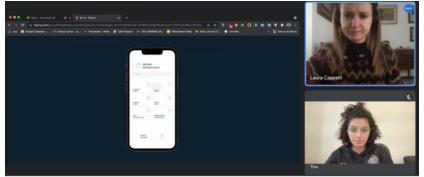
"I like it, but maybe It would be nice to contact my therapist and dietician each on their own"

The messages part was changed to make the user be able to contact all specialists included in the treatment journey together in a group or to contact them individually.

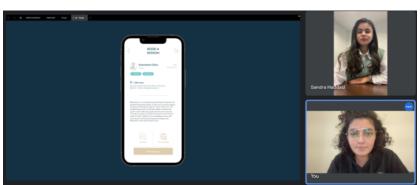
"Maybe the part of where psychologists recommend me dieticians could be a bit restrictive"

I have added a division in where the user/patient can either book a session with a recommendation or choose their own dietician from the list provided by the app, ascending order on the dietician that relates to the user more.











# THANK YOU

### NARDIN ADEL WAHIB SHAFIK

MSc Product Service System Design
A. Y. 2020/2021