



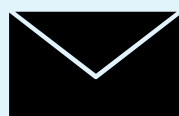
Digital Mental Health
Orben Group

How Digital Technology Affects Youth Psychological Wellbeing and Mental Health

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Overview

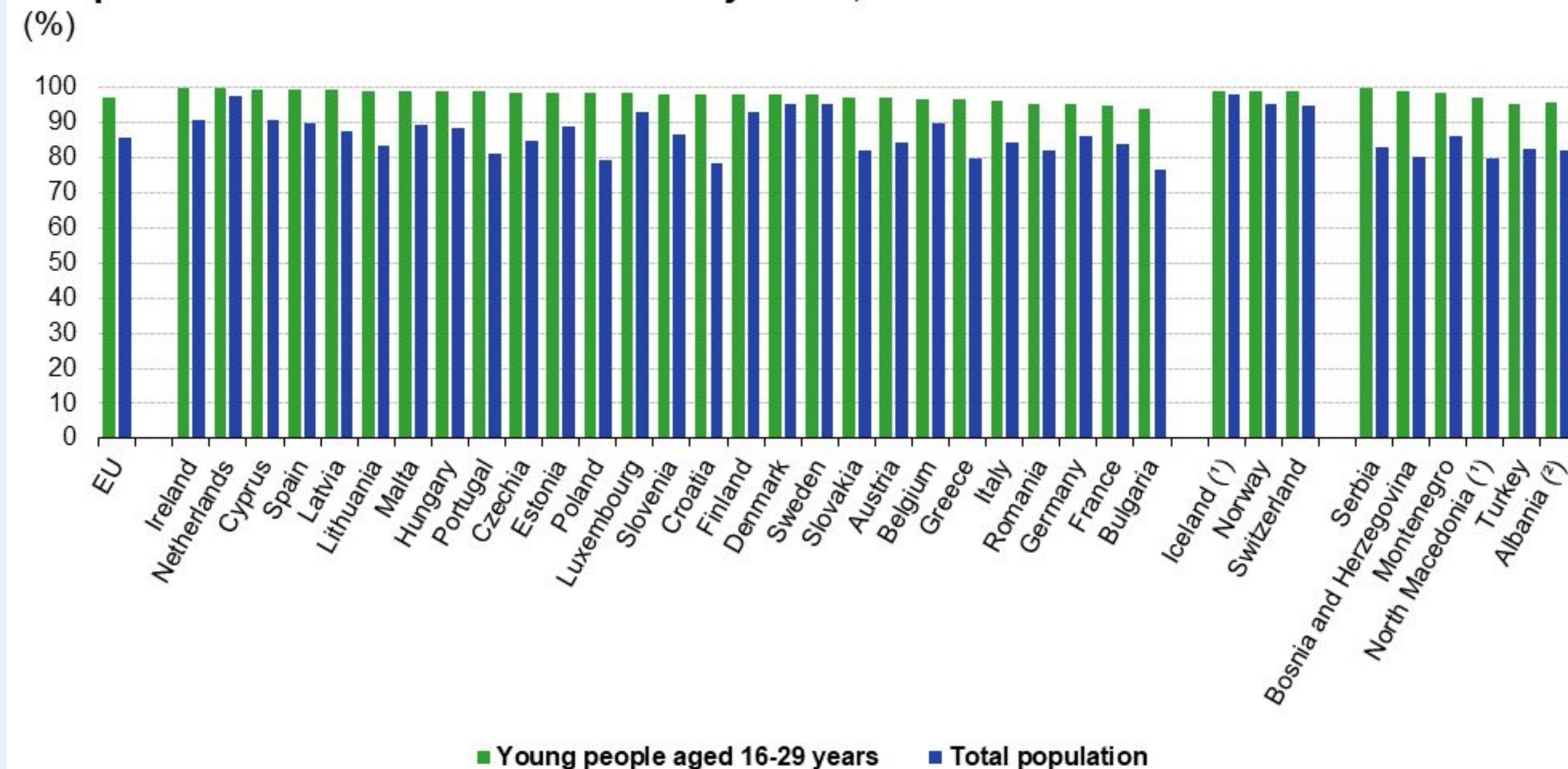
1. Background: understanding the issue
2. State of evidence
3. Current issues in conceptualising mental health impacts
4. Solutions: developing technology for wellbeing

Digital Technology Use Amongst Youth

In 2024, almost half of young people reported being 'almost constantly' online.¹

Primary activity: social media.²

People who used the internet on a daily basis, 2023



(1) Data from 2021

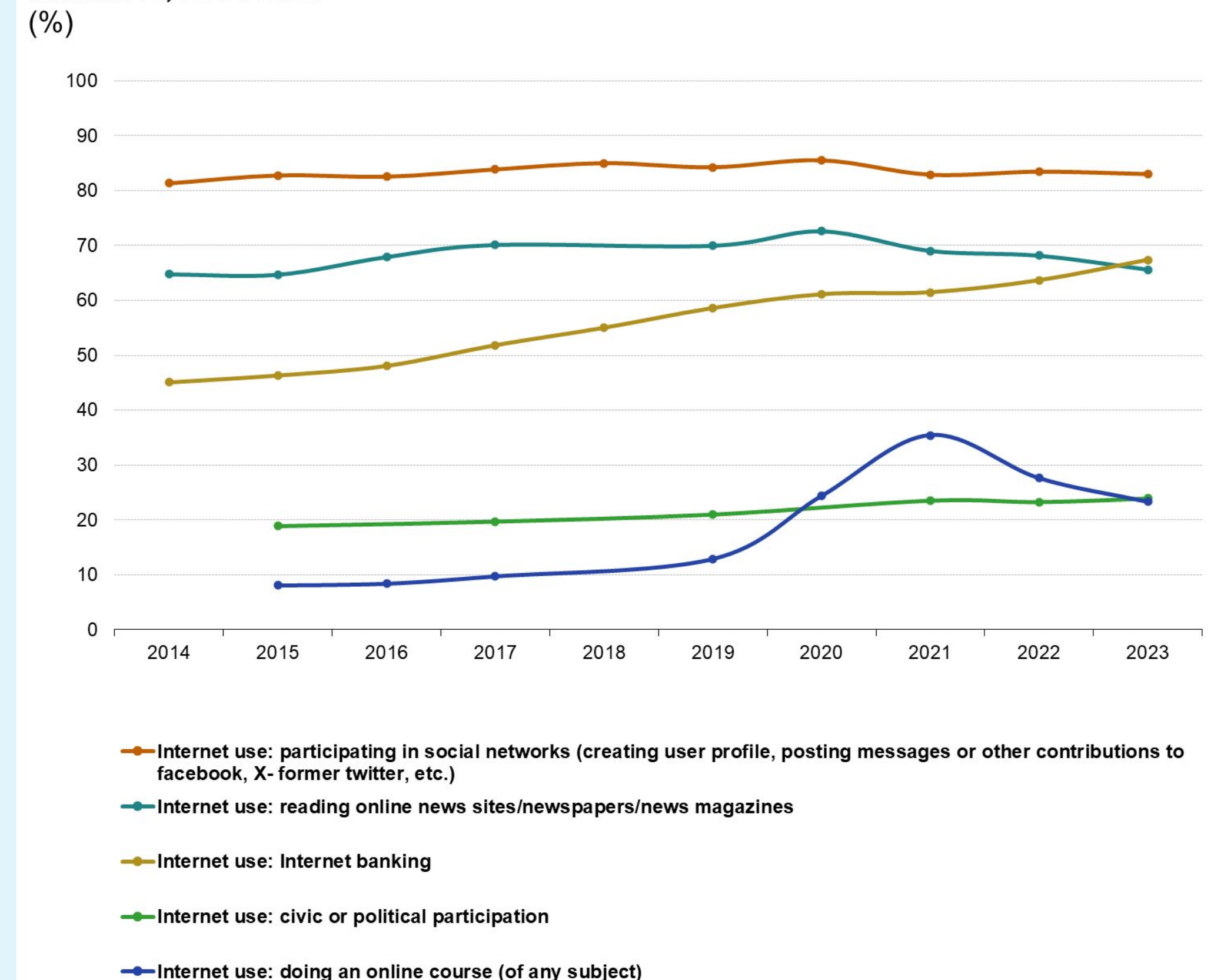
(2) Data from 2022

Source: Eurostat (online data code: isoc_ci_ifp_fu)

eurostat

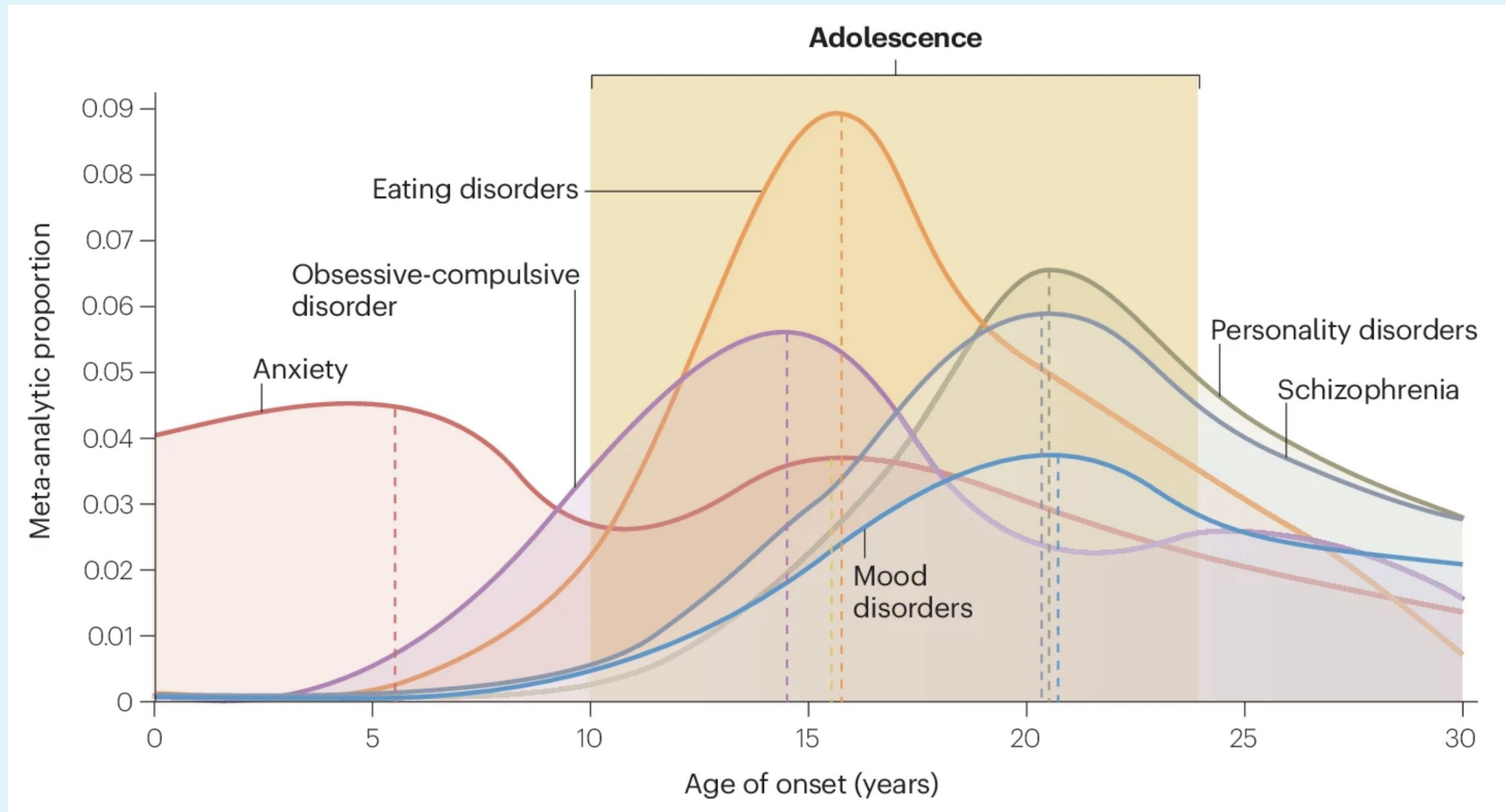
2

Young people's internet use in the EU, selected activity indicators, 2014-2023



Youth Development and Mental Health

Adolescence is a sensitive period when majority of mental health disorders emerge.¹

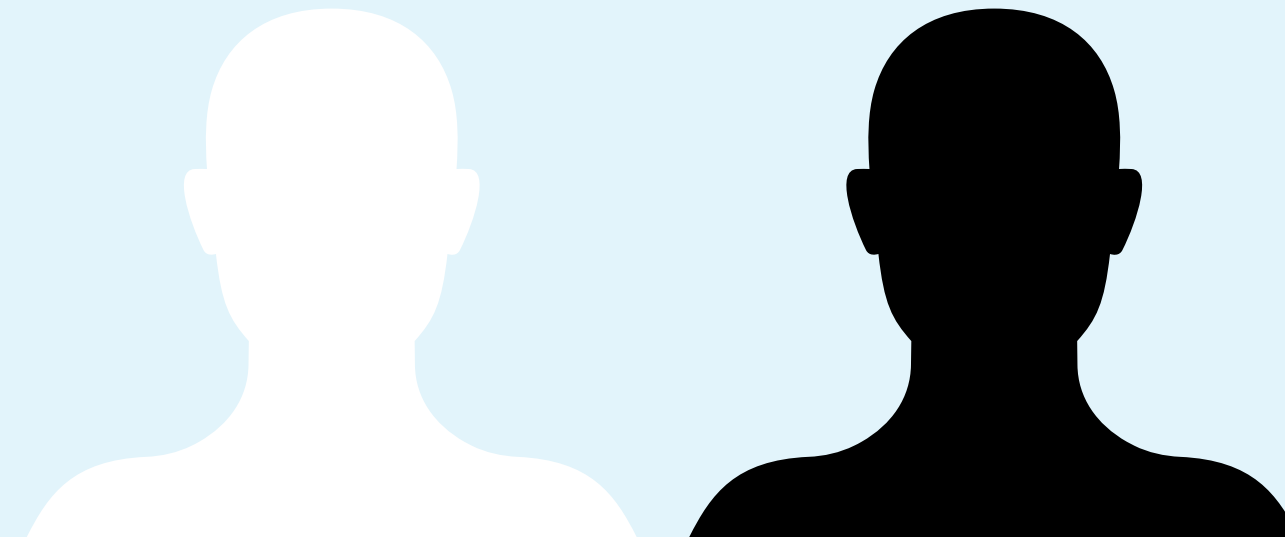


Mental Health Amongst Youth

Recent increase in number of young people with mental health conditions.¹

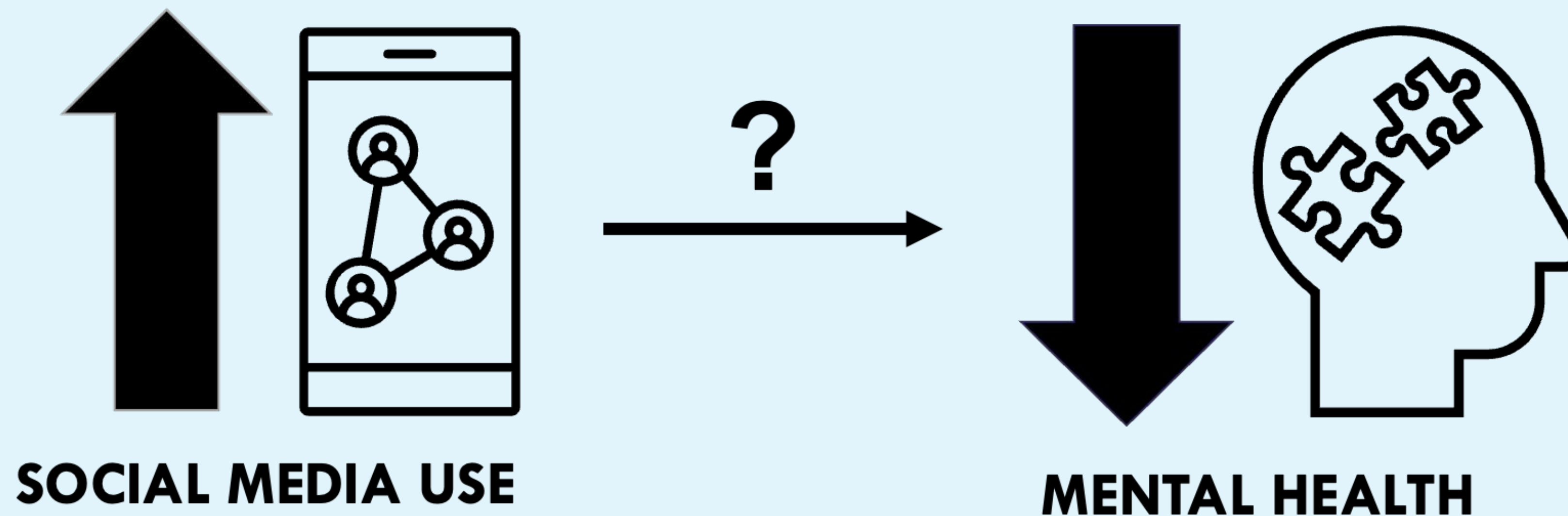


1 in 2 youth in the EU have unmet mental healthcare needs.²



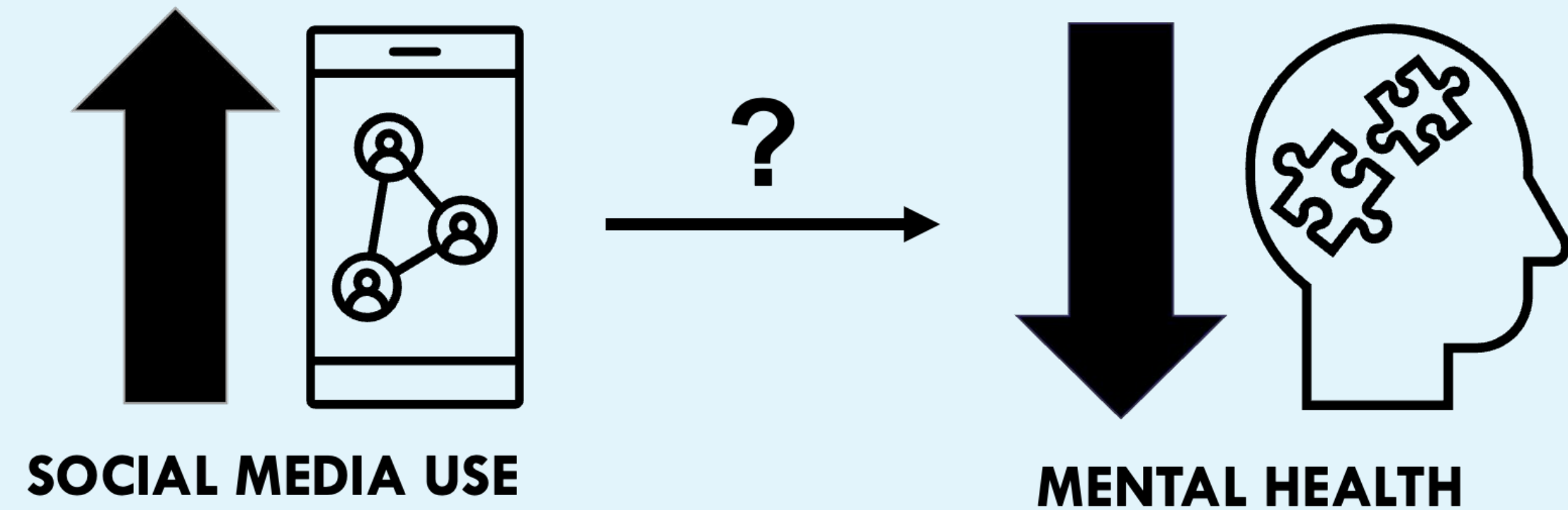
Key Question:

Is Technology Use Linked To Increased Mental Health Concerns?



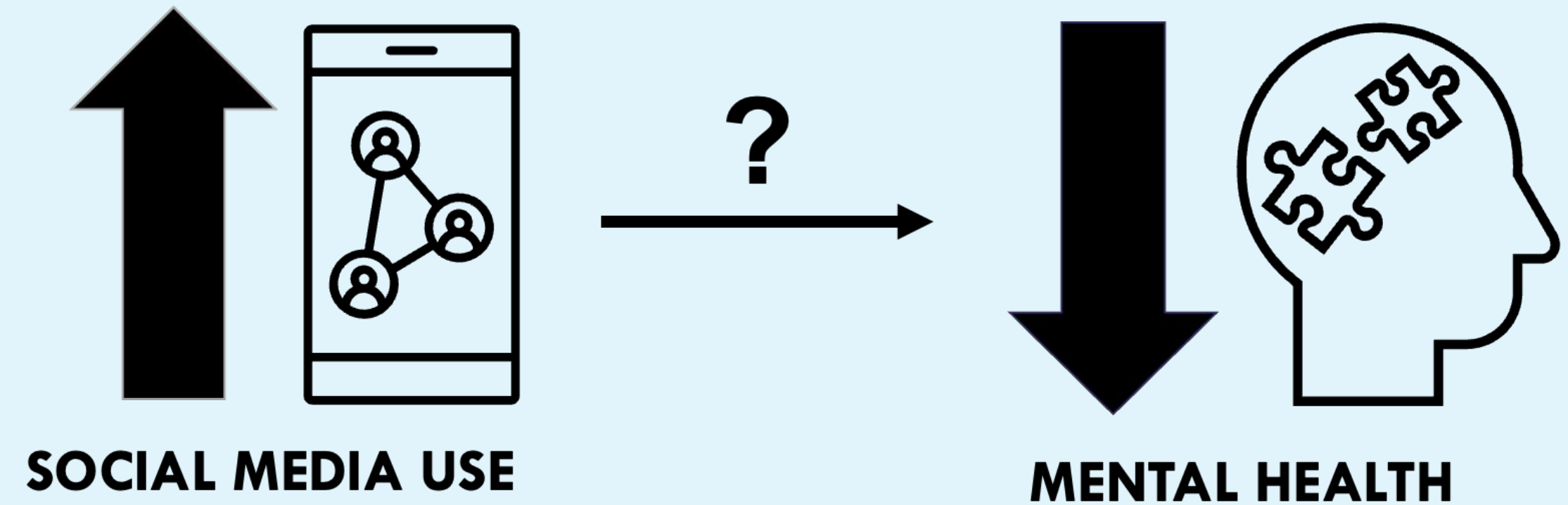
Existing Evidence: What we know

1. Evidence of small negative correlations.¹
2. Differences based on age and gender.²
3. Individual differences.²



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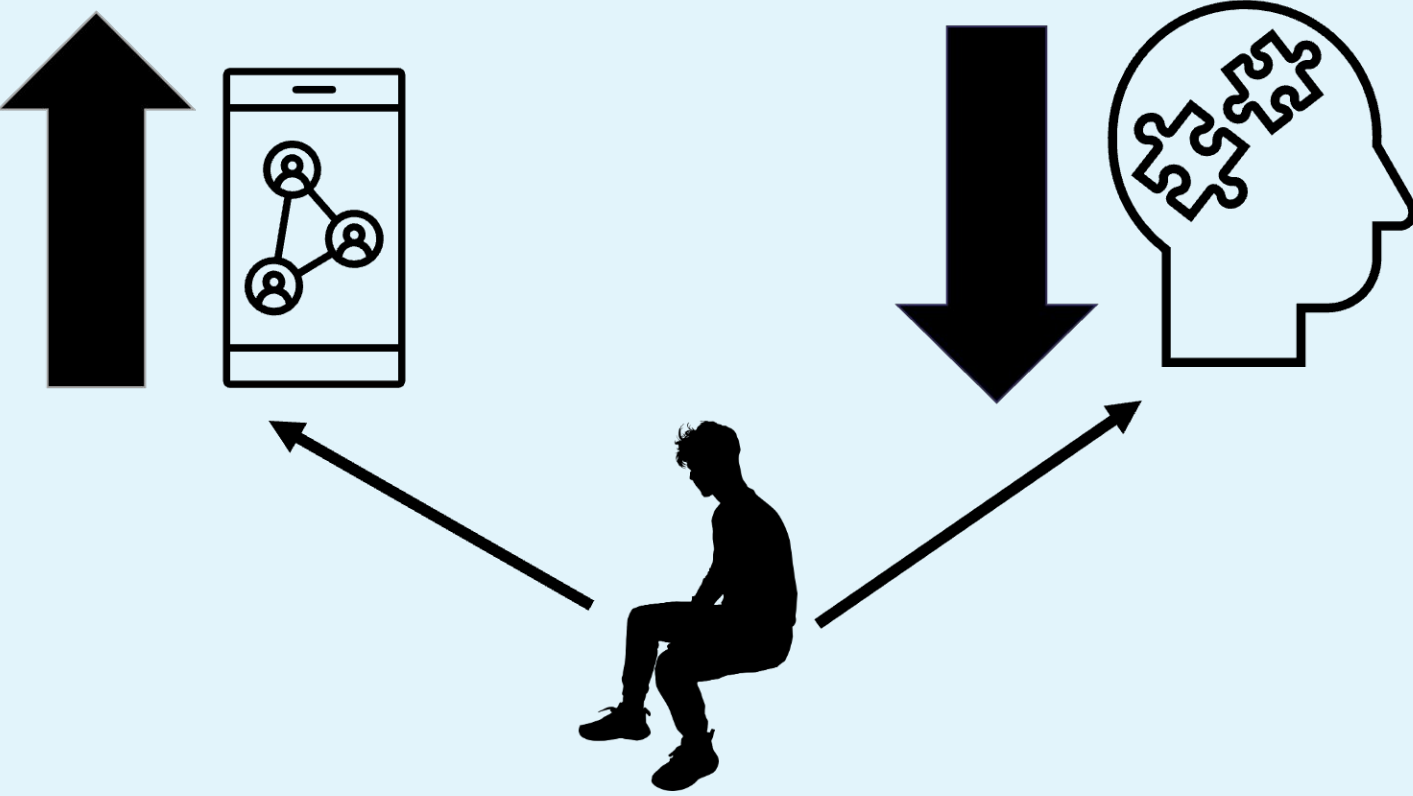
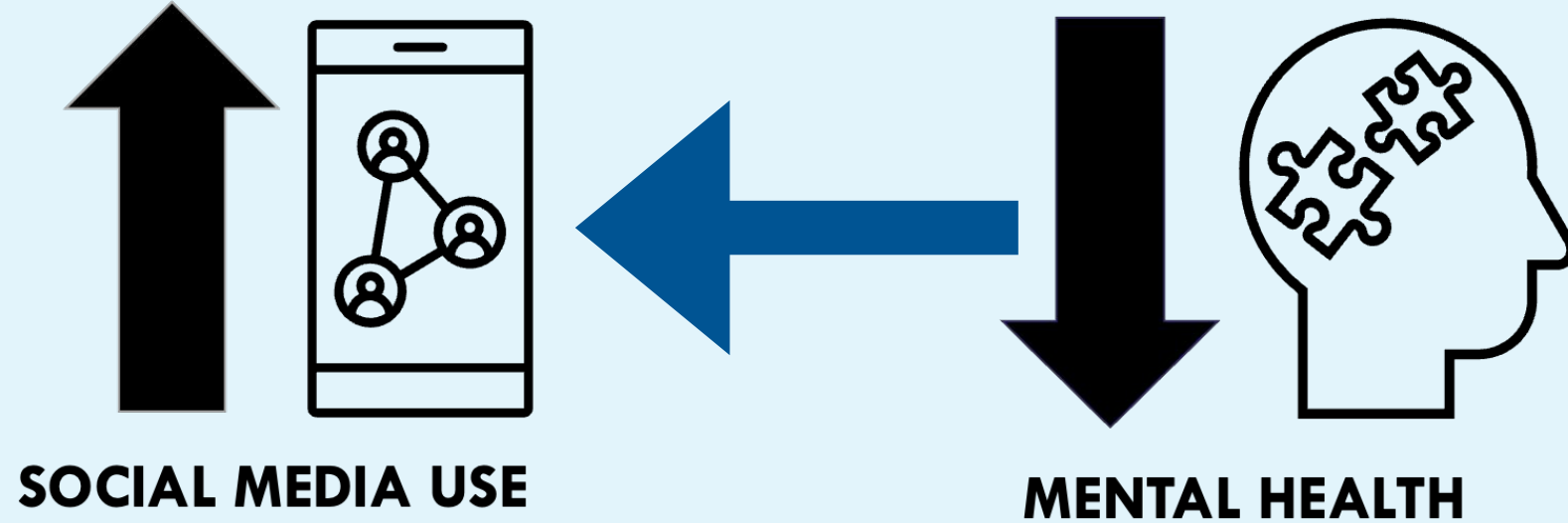
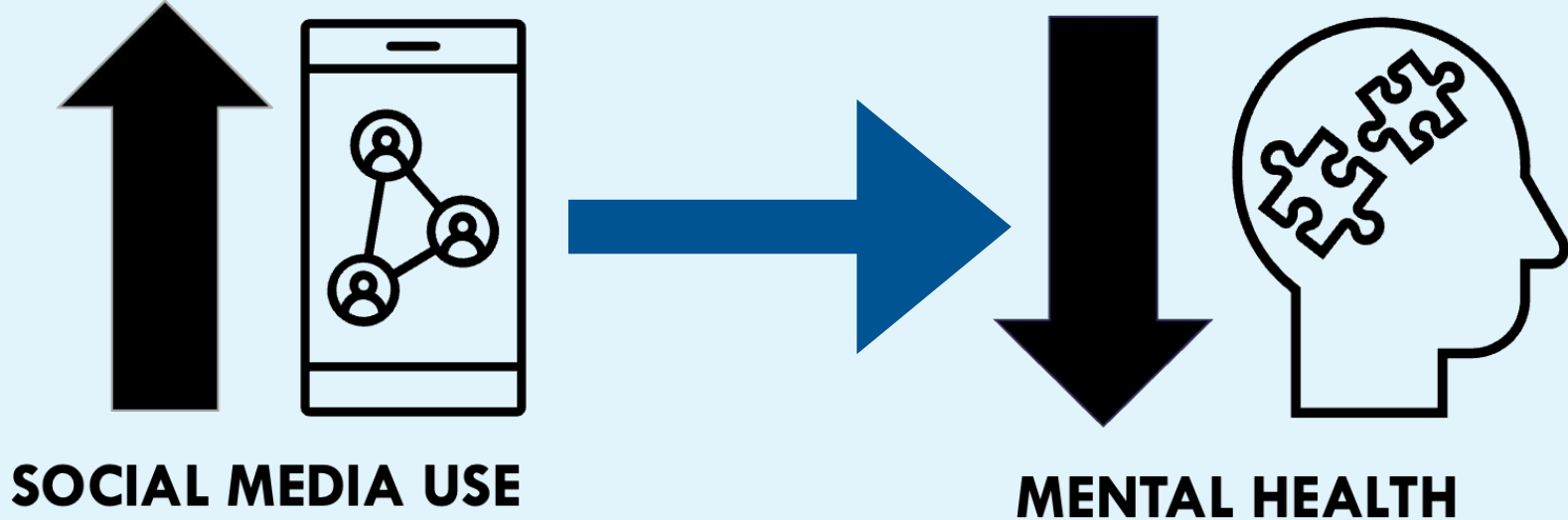
Issues:

Lack of causal evidence

Diverse mental health impacts

Current Issues: Causality

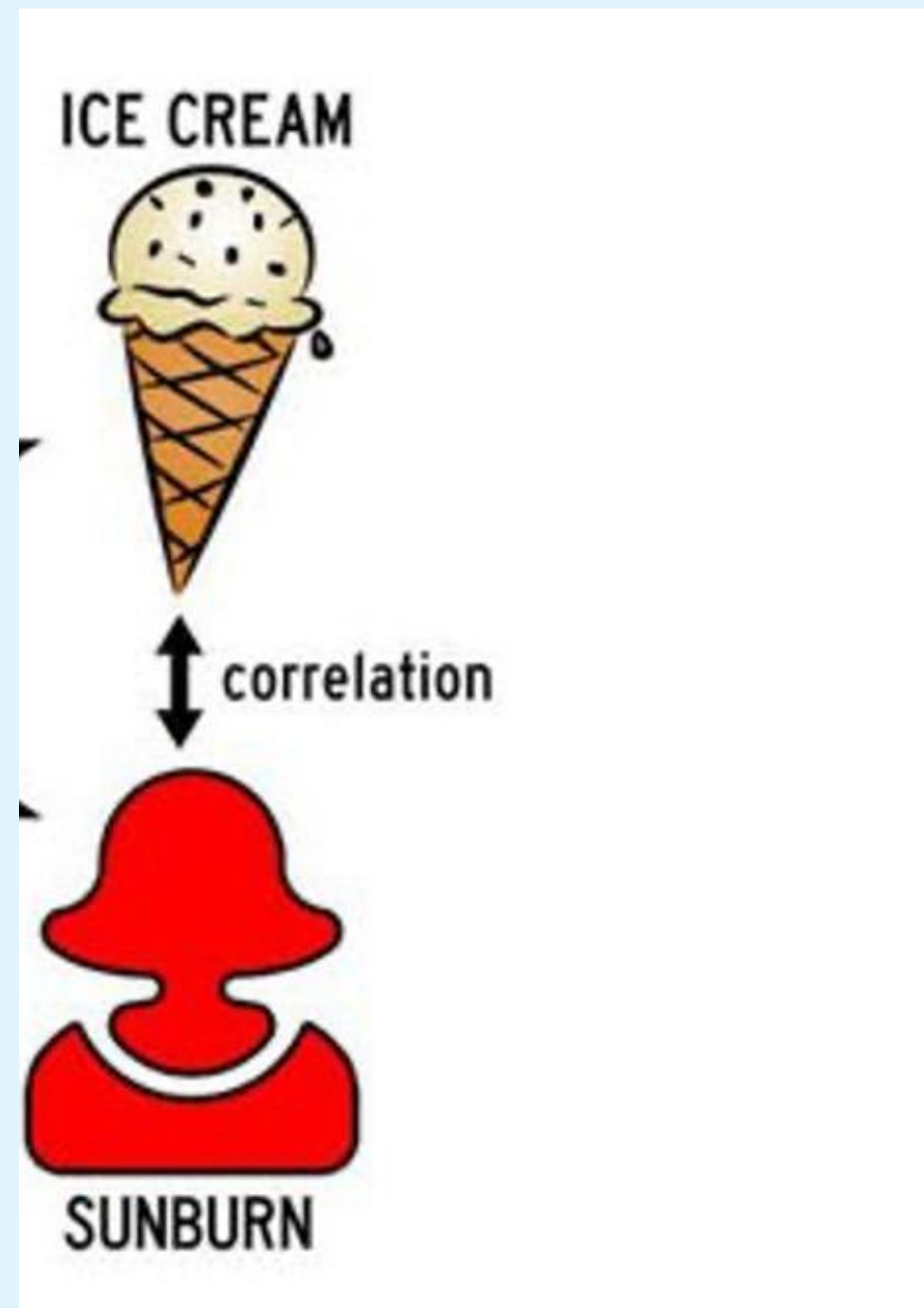
Findings are largely correlational and there is a lack of causal evidence for social media's negative mental health effects.¹



1. Fassi et al., JAMA Pediatrics (2024)

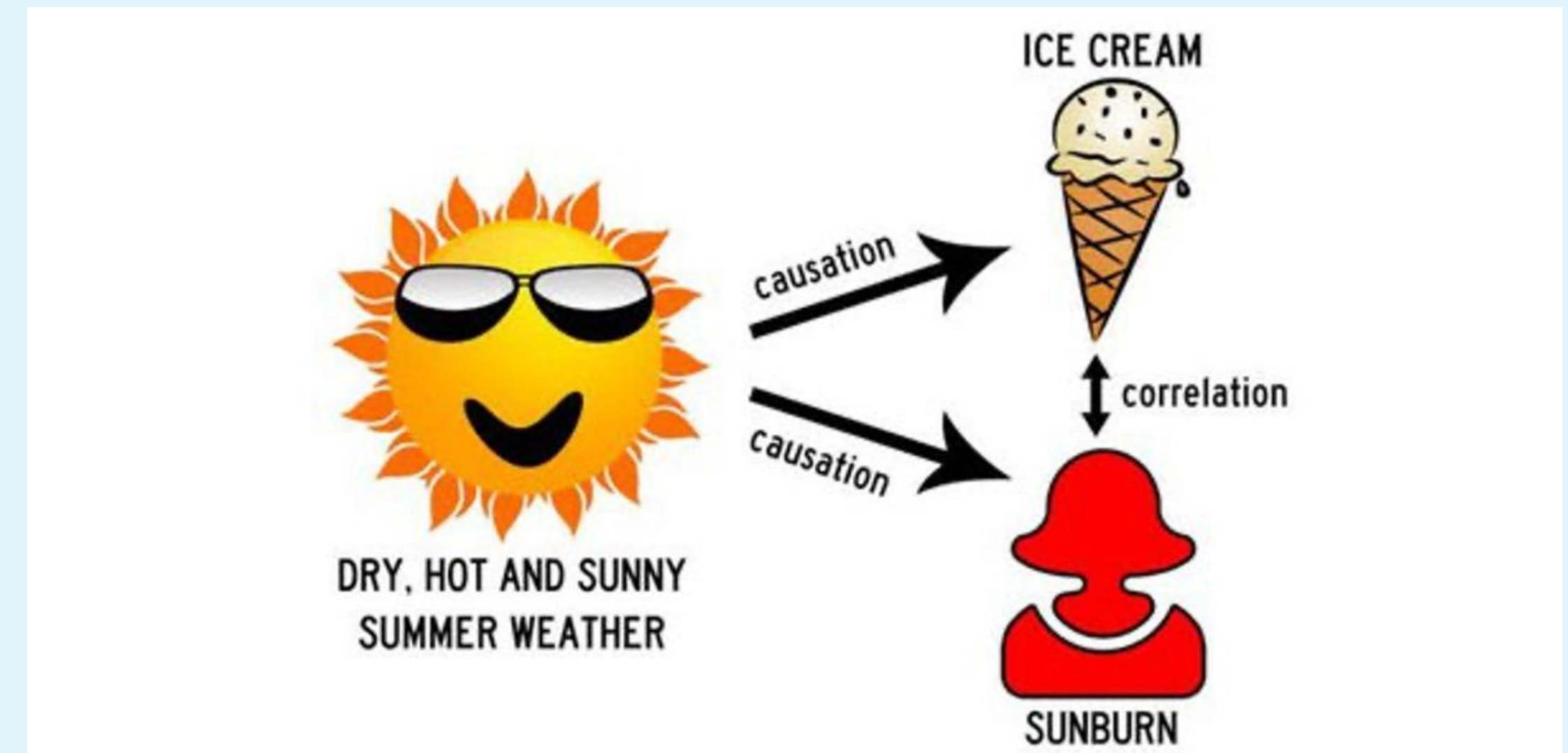
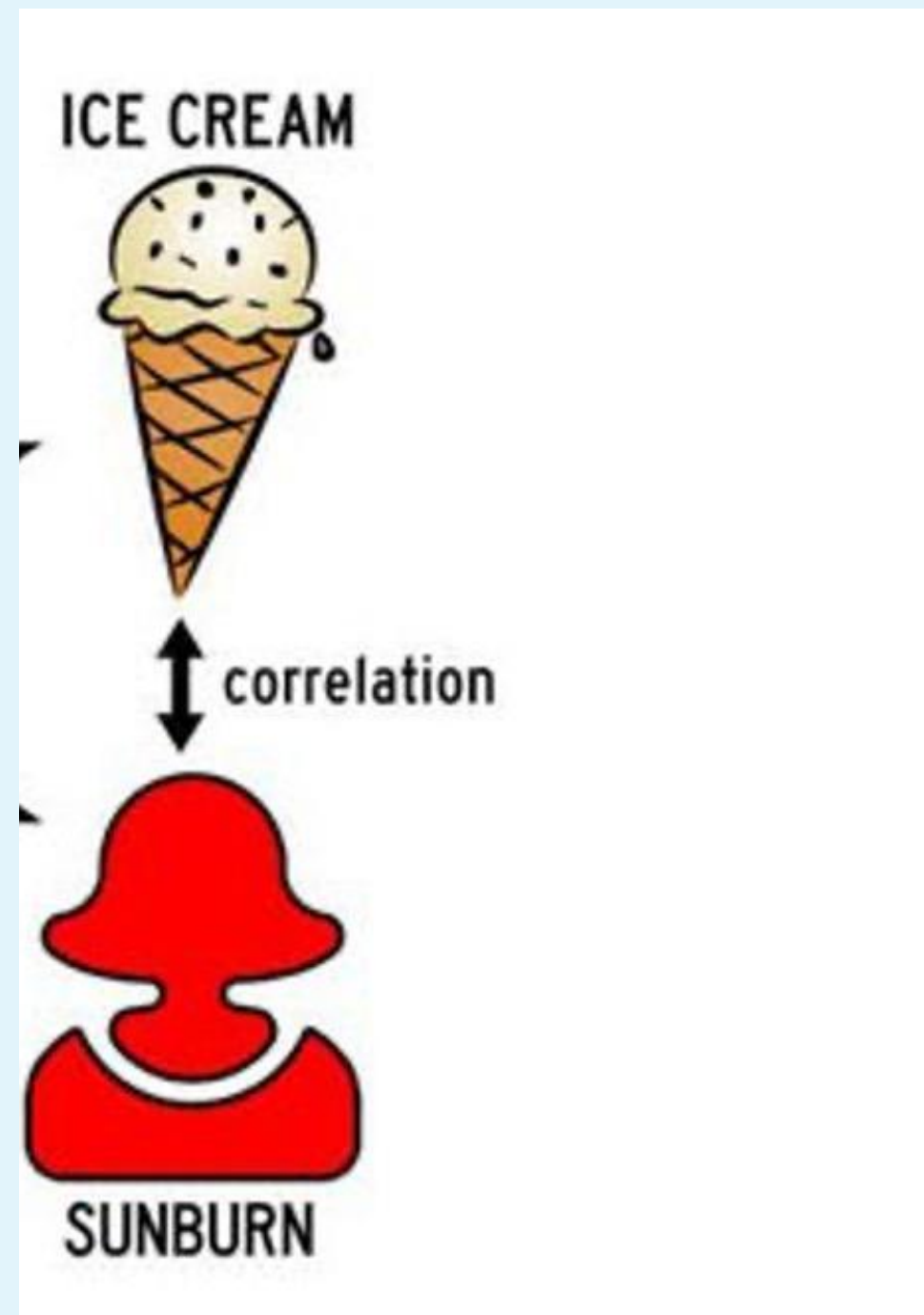
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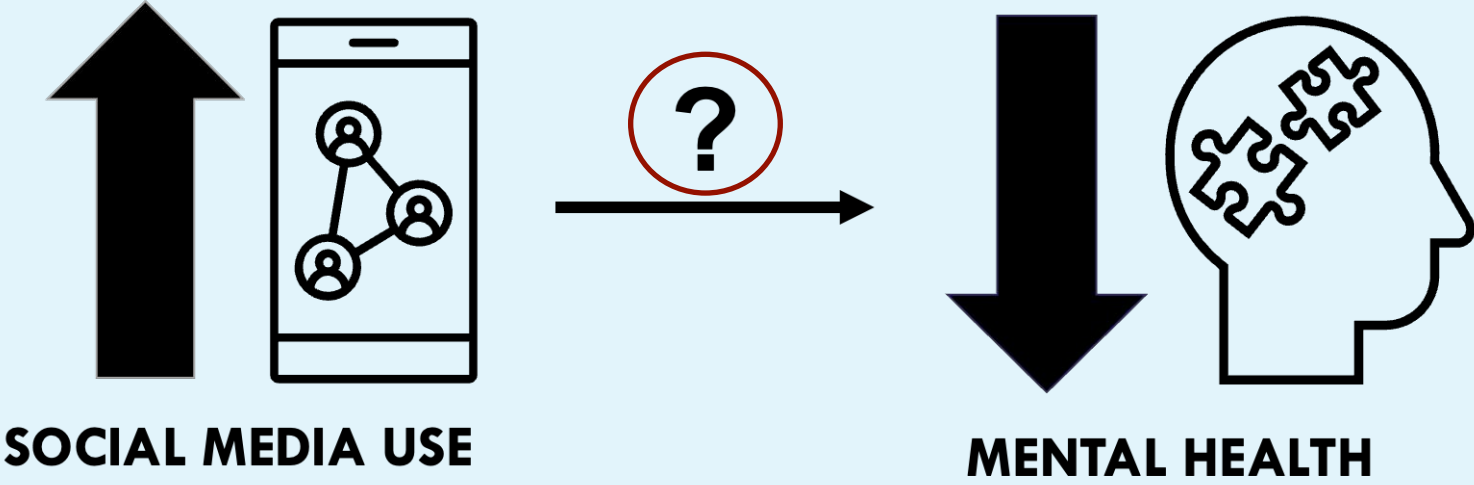
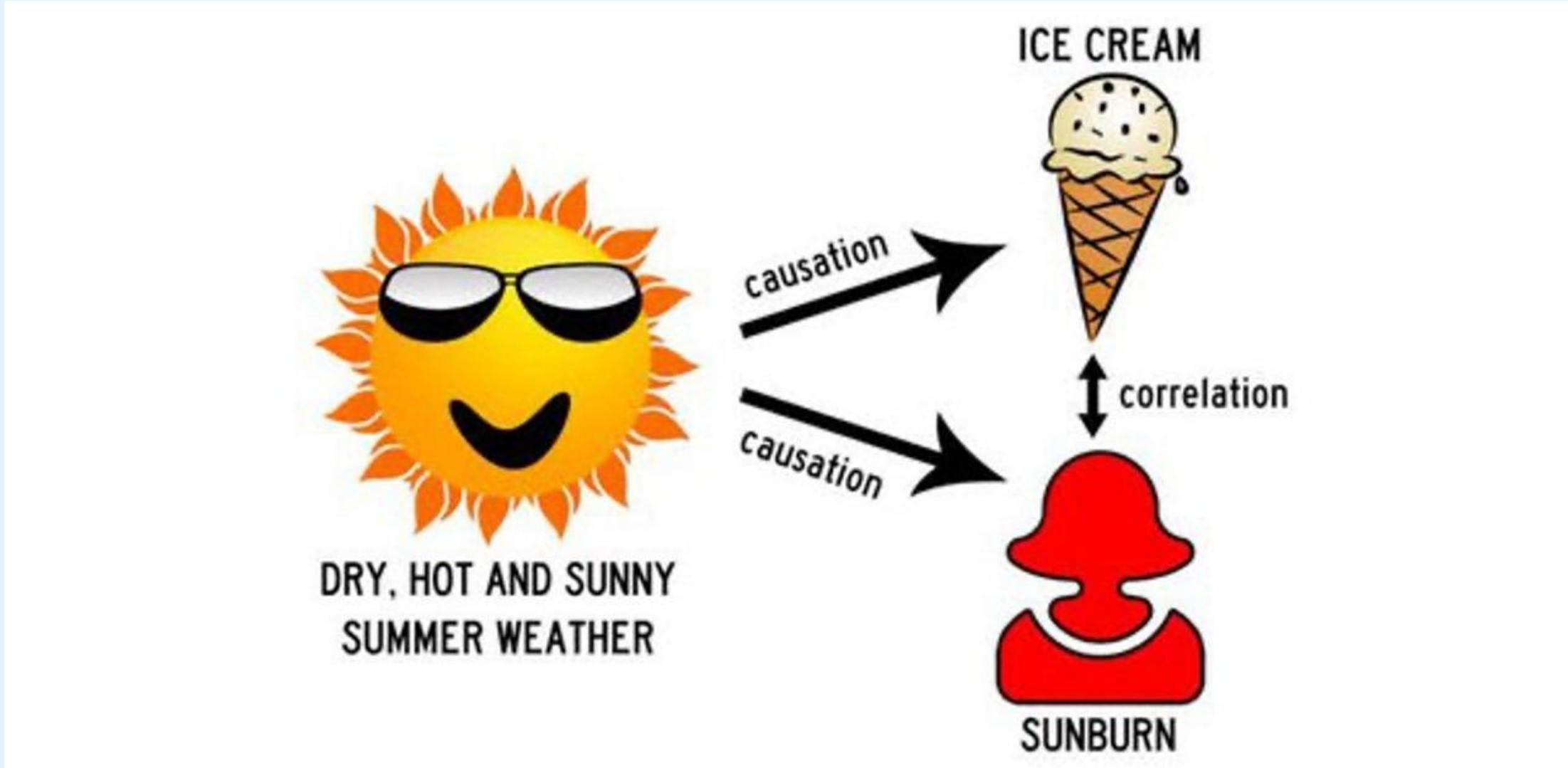
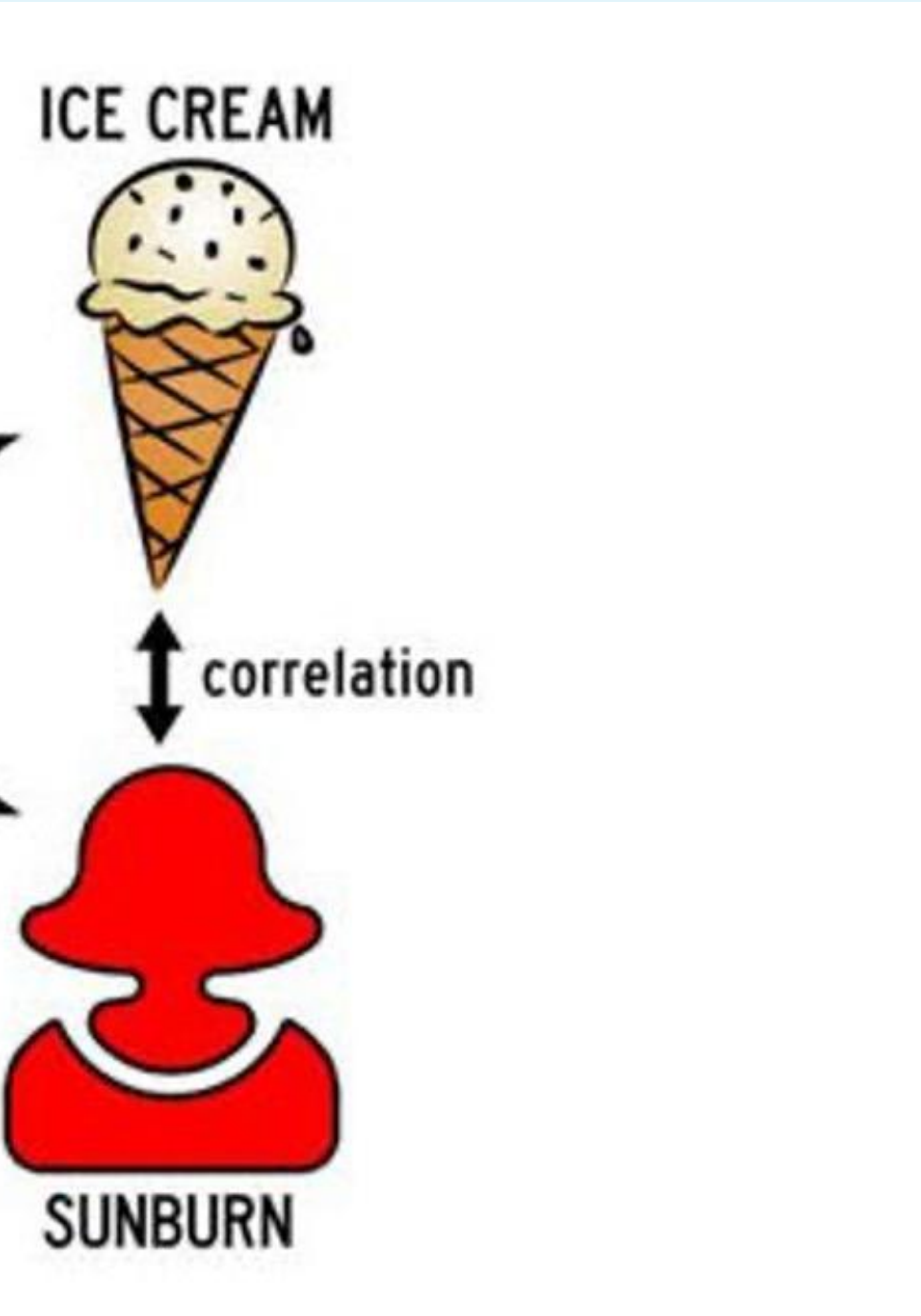
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Current Issues: Diverse Impacts



'Healthy' diet looks different for different people

- Technology may have positive and negative impacts.¹
 - Belonging vs. negative social comparisons
- Range of technologies and technology features that may have different mental health effects.

Current Issues: Conceptualising Solutions

Issues

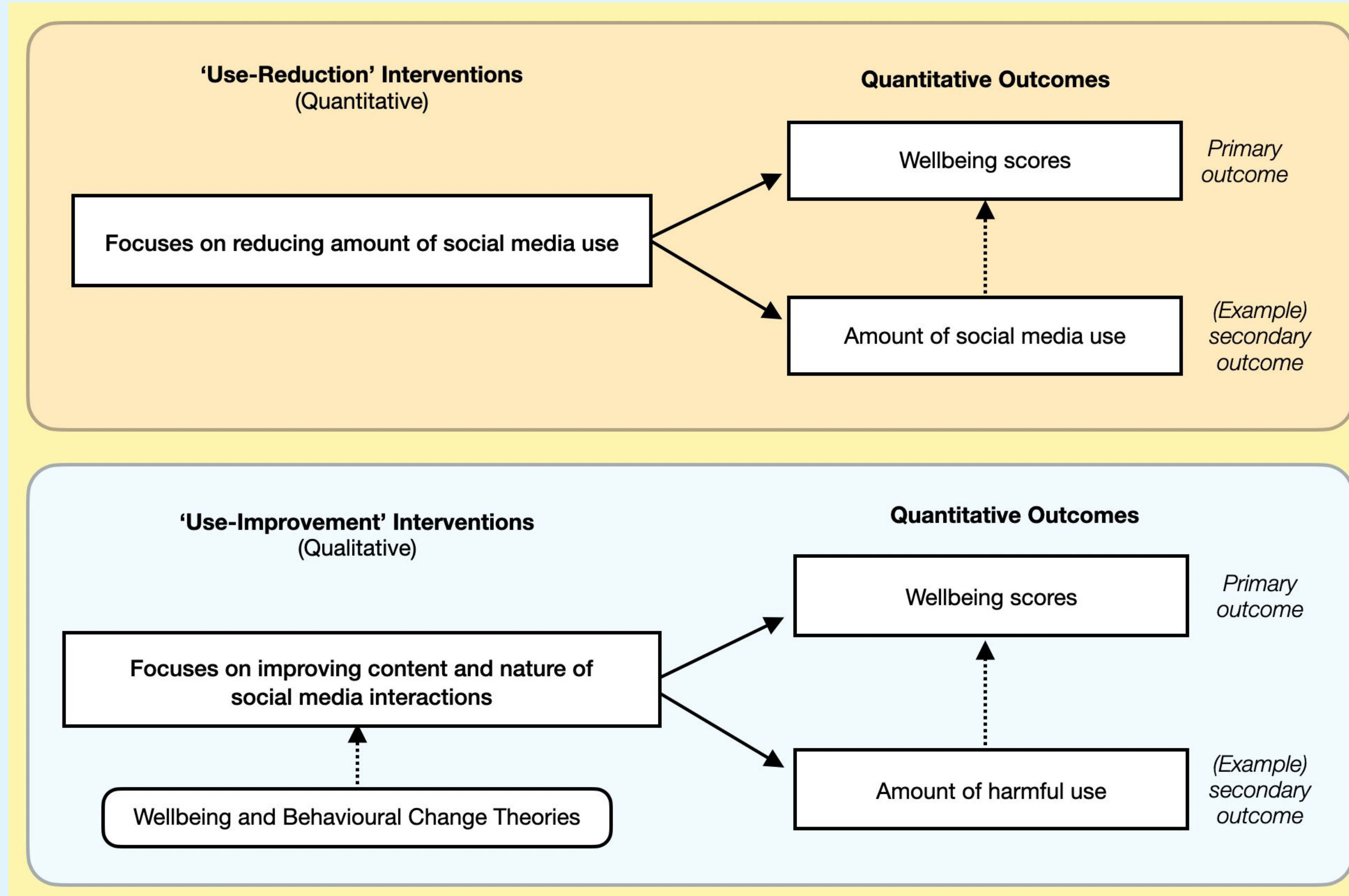
1. Lack of causal evidence demonstrating technology's mental health impacts
2. Diverse impact of technologies

Solutions

1. Digital interventions → test causal question
2. Improved technology design → address diverse impacts

Potential Solutions: Interventions

Interventions: strategies that aim to change interactions with technology to improve wellbeing



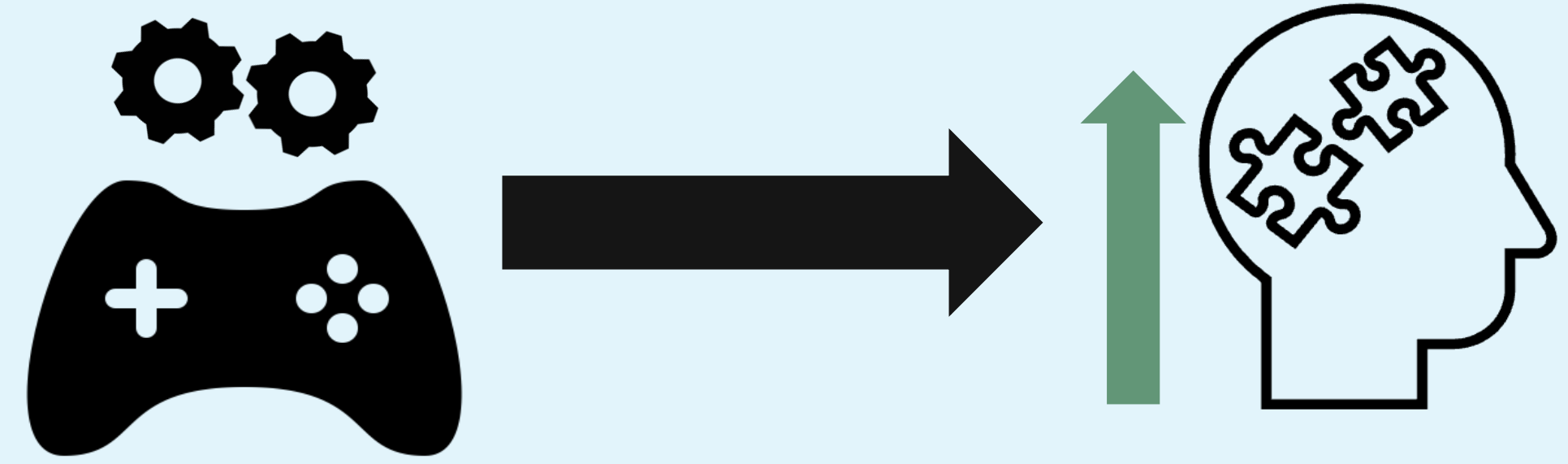
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Use Reduction Intervention

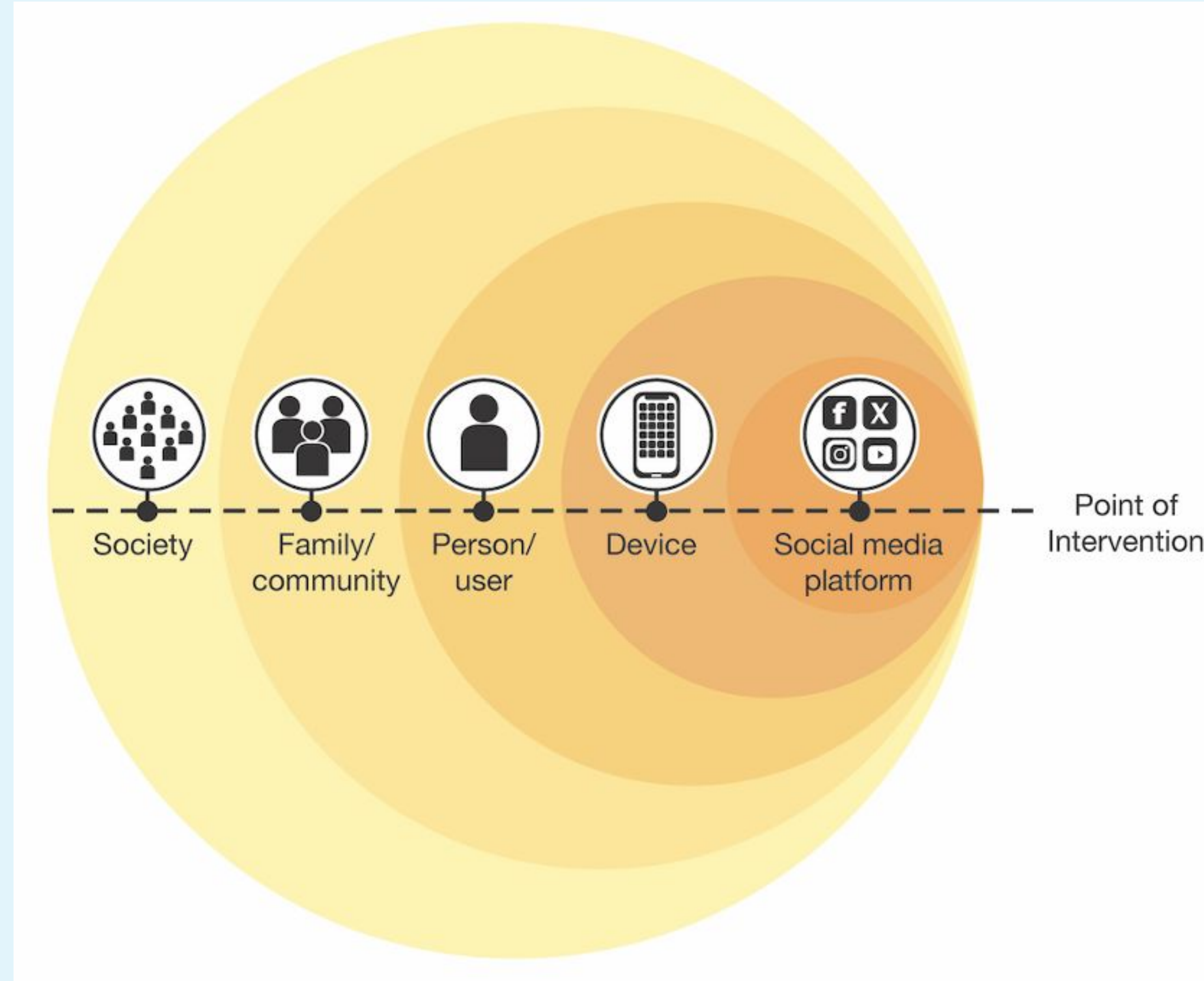


Use Improvement Intervention



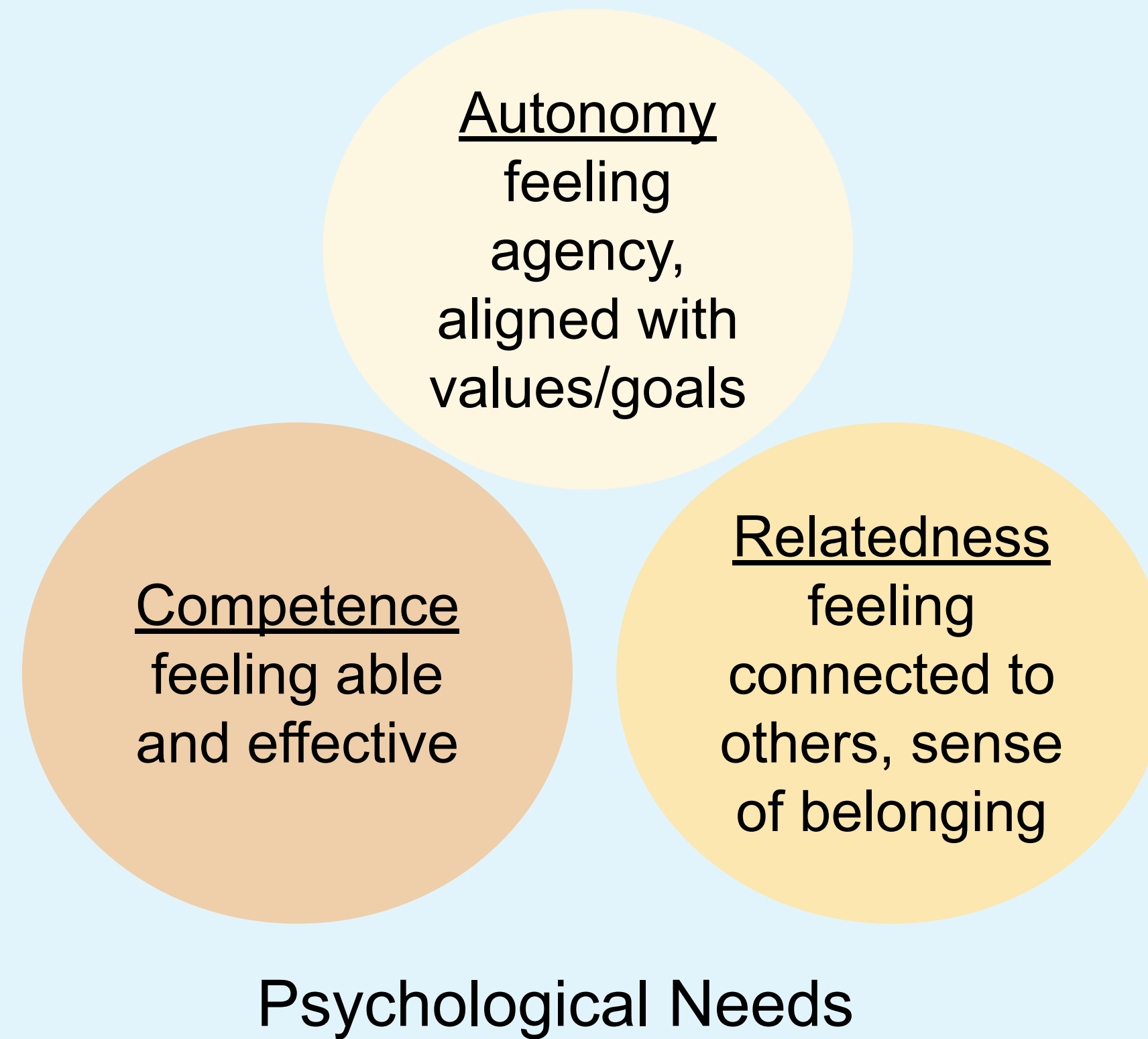
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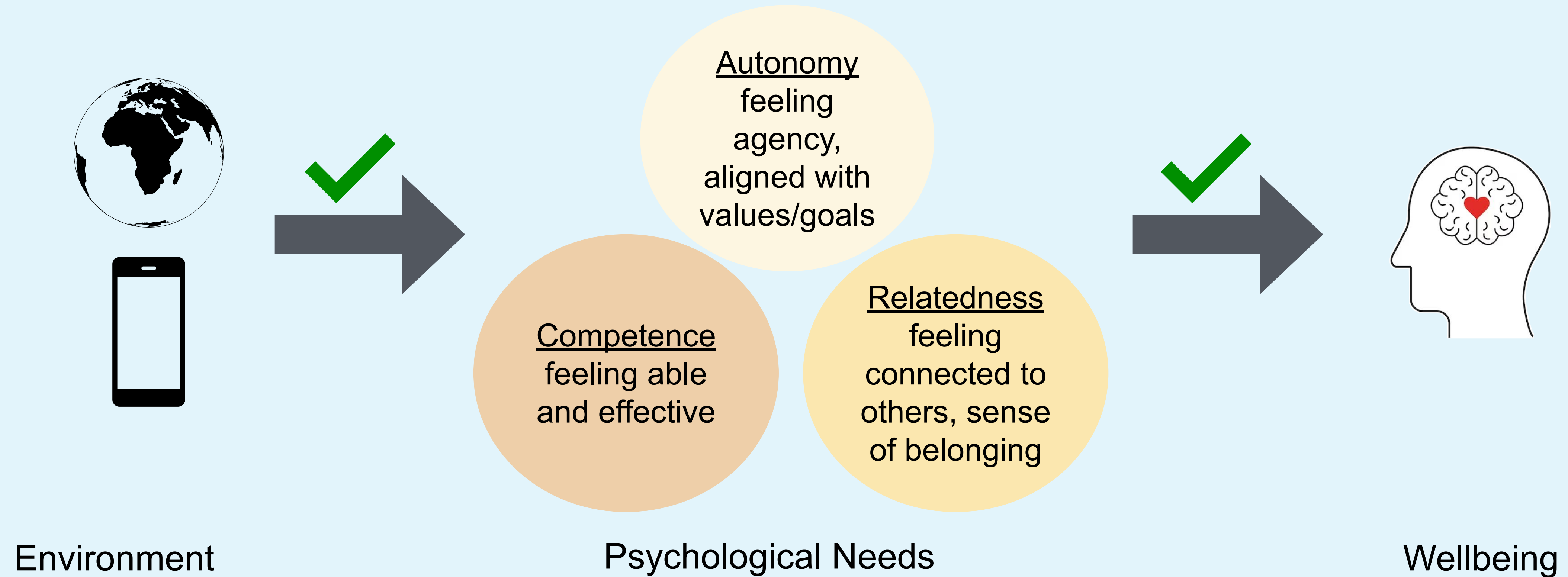
Potential Solutions: Designing for Wellbeing

Self-determination theory: three core psychological needs that are important for wellbeing.¹



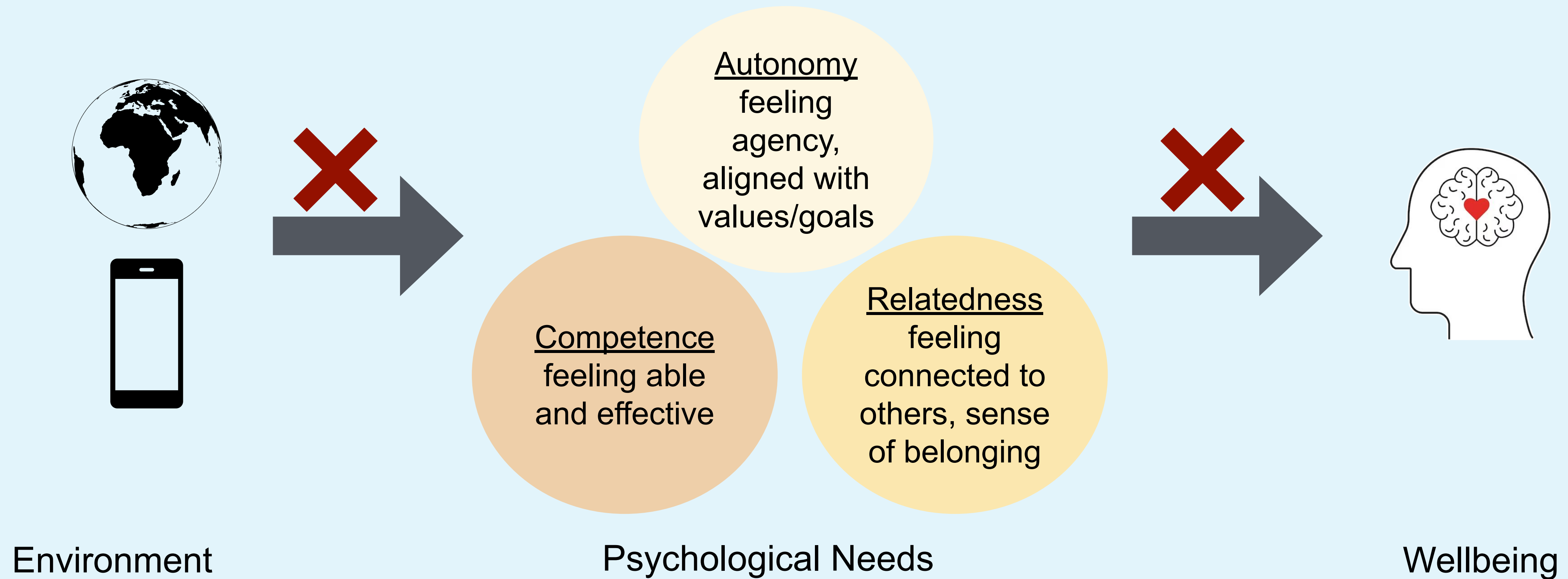
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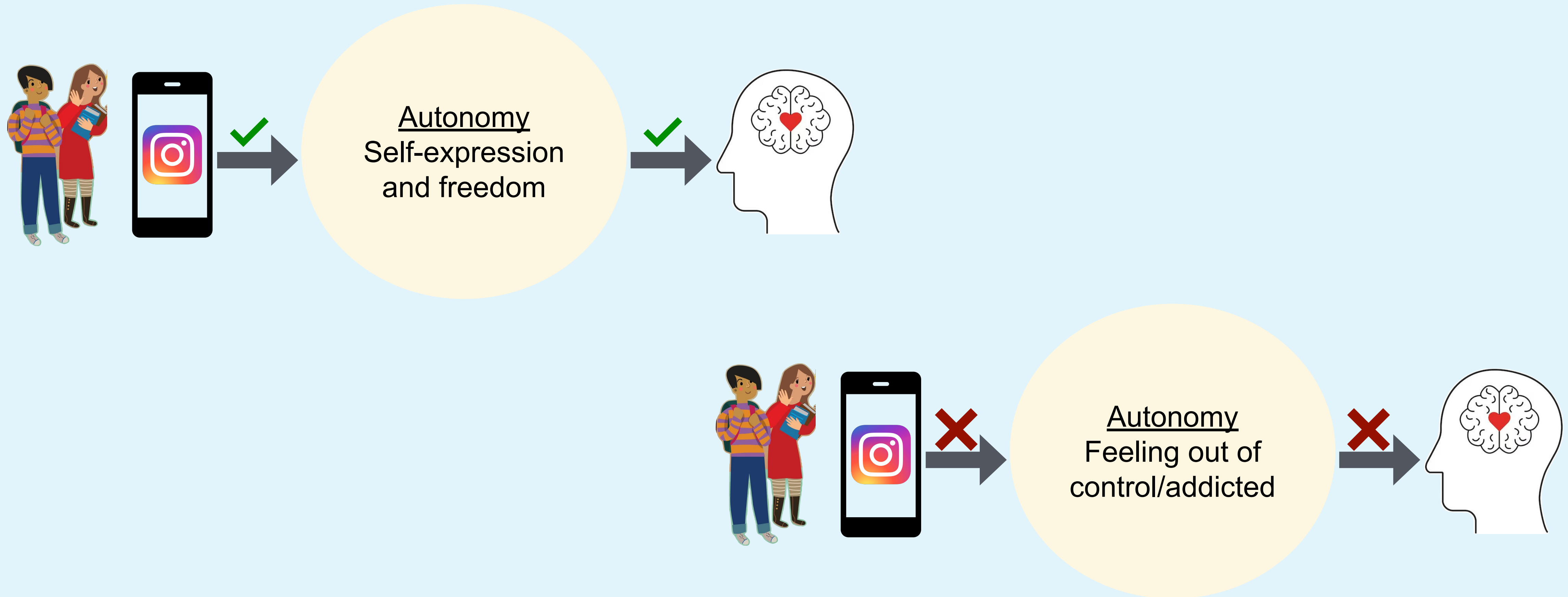
Potential Solutions: Designing for Wellbeing

Self-determination theory: three core psychological needs that are important for wellbeing.¹



Potential Solutions: Designing for Wellbeing

Technology may satisfy or frustrate youth's psychological needs to impact wellbeing.^{1, 2}



Potential Solutions: Designing for Wellbeing

	Satisfaction (supports wellbeing)	Frustration (prevents wellbeing)
Autonomy	<ul style="list-style-type: none">• Provides choice over content engagement	<ul style="list-style-type: none">• Limits agency over technology by creating social pressure to be constantly online.
Competence	<ul style="list-style-type: none">• Provides positive feedback channels that allow feelings of mastery.	<ul style="list-style-type: none">• Allows access to harmful content (e.g., violence) exacerbating feelings of helplessness or overwhelm.
Relatedness	<ul style="list-style-type: none">• Provides opportunities to connect with peers, receive validation, and share experiences.	<ul style="list-style-type: none">• Heightened risk of negative social experiences such as cyber-bullying or trolling.



Conclusion

1. State of evidence:

- Increase in technology use and mental disorders amongst youth
- Small negative correlations and evidence of individual differences

2. Current Issues

- Lack of causal evidence
- Diverse impacts across technologies and users

3. Solutions

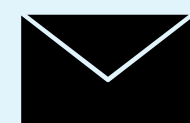
- Interventions to test causality and enhance wellbeing
- Designing for wellbeing by supporting autonomy, competence and relatedness

Thank you

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Acknowledgements

Dr Amy Orben



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Questions?

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Research

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Kindred

Anxiety

makes you feel excessively worried for long amounts of time. These feelings may change how you behave or stop you from living normally.

Anxiety looks different for everyone. It can come out of the blue or as a response to stressful situations.

🔗 Signs

- Persistent feelings of worry or nervousness
- Feeling a sense of panic or doom about the future
- Feeling agitated or on edge
- Trouble sleeping
- Heart racing

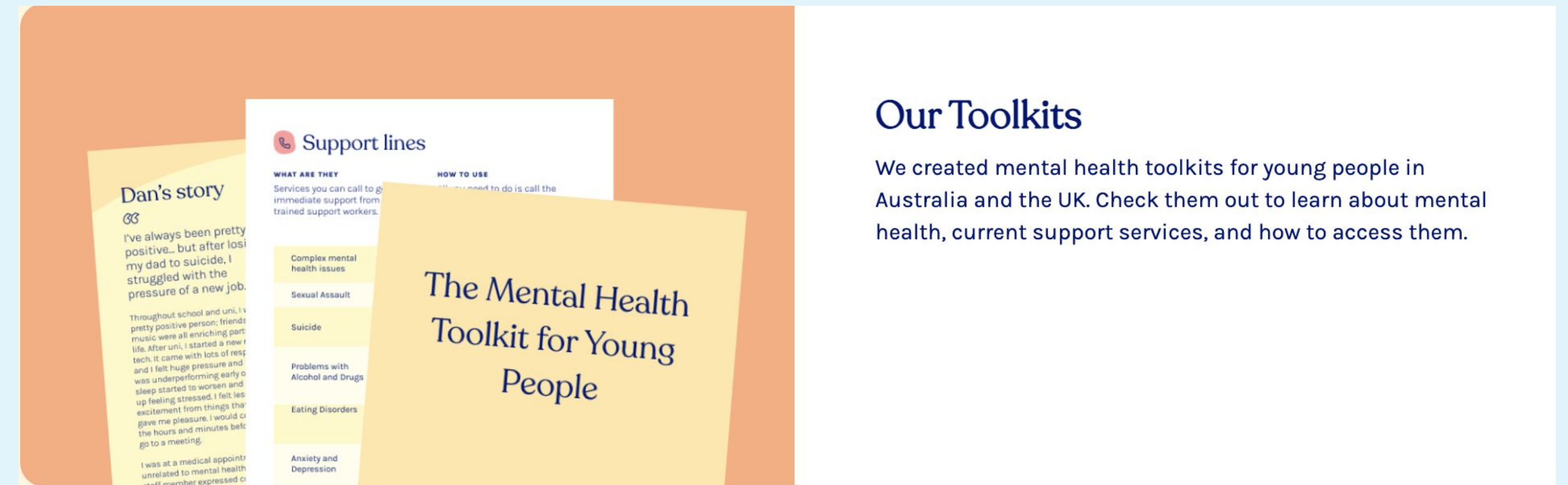
What can I do?

- **Move:** try to do some form of exercise, even if it's just a short walk.
- **Breathe:** focus on counting your breathing.
- **Grounding:** try to focus on things around you that you can see, touch, hear, smell and taste.

Who experiences it?

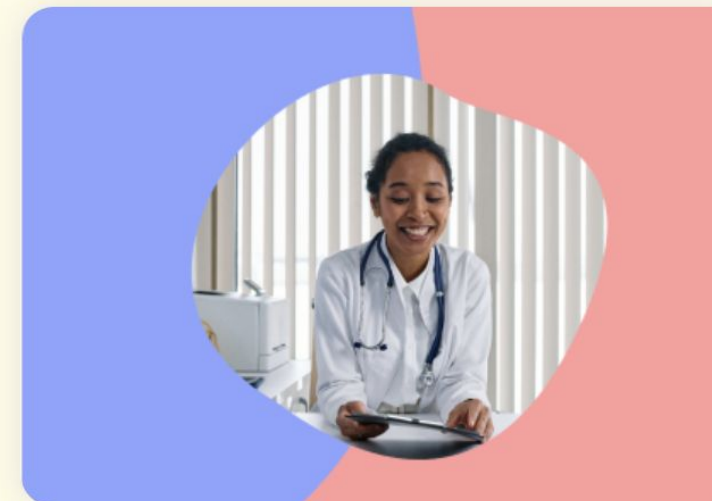
Anxiety is the most common disorder experienced by young people. Most of us struggle with anxious thoughts and feelings. Luckily, there are lots of things you can do to overcome the symptoms.

- **Talk:** find someone close to you to talk to about your feelings.
- **Get professional help:** professionals use therapy to help you manage your thoughts and feelings .



Our Toolkits

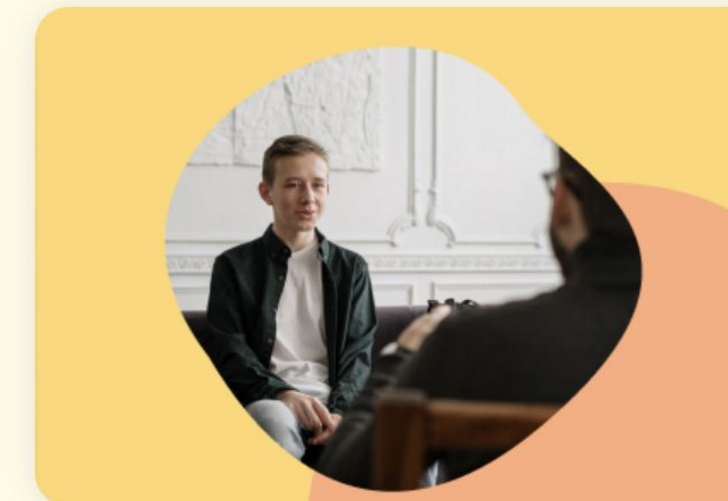
We created mental health toolkits for young people in Australia and the UK. Check them out to learn about mental health, current support services, and how to access them.



UK

How do I talk to my psychologist?

Wondering how to talk to your psychologist about mental health issues. We've got you covered.



UK

How to connect with a good psychologist?

We explain how to connect with a psychologist that works for you.



UK

Understanding the NHS

Wondering how to get mental health support via the NHS? We've got your covered.

Using LLMs for Data Collection

1. Conversation Input

Intro....



What do you find most challenging about your current social media use?



Its addicting and I just cant stop, I feel like I could do so much more without it



Thank you for sharing that. It sounds really tough to manage. Now, let's talk about a specific experience you've had on social media. What happened? Specifically, what was said, posted, or done?



Just like knowing I should stop but I just cant



I understand, it sounds like the ongoing struggle with wanting to stop but feeling unable to is really challenging. Let's try to dig a bit deeper into that feeling. What's the context? What else should we know about the situation? For example, are there certain times or situations when you feel this way more strongly?



When I need to sleep and I just cannot get off the app



Thank you for sharing that. It sounds like it's especially tough when you need to rest but can't pull yourself away from social media. How did the situation make you feel, and how did you react?



Frustrated and helpless



I'm really sorry to hear that. Feeling frustrated and helpless can be really tough. What was the worst part of the situation?



It would affect my next day because I would wake up late and feel like the day has already been wasted

Outro....

2. Extracted Answer Set

What occurred: "knowing I should stop but i just cant"

The context: "when I need to sleep and I just cannot get off the app"

The reaction: "frustrated and helpless"

The worst part: "it would affect my next day because I would wake up late and feel like the day has already been wasted"

3. Final Stories

✓ **Selected story**

Option 1



Lately, I've been struggling with my social media habits, especially when it comes to bedtime. I know I should stop scrolling and get some sleep, but I just can't seem to put my phone down. This usually happens when I'm supposed to be winding down for the night, but instead, I find myself endlessly scrolling through posts and videos. It leaves me feeling really frustrated and helpless because I know it's not good for me. The worst part is that it messes up my next day end up waking up late and feeling like I've already wasted the day before it even starts. It's a cycle that's hard to break, and it's really starting to get to me.

Option 2



Lately, I've been struggling with my social media habits, especially at night. Even though I know I should stop scrolling and get some sleep, I just can't seem to put my phone down. It's like I'm stuck in this loop of endless content. This usually happens when I really need to rest, but I end up staying up way too late. The next day, I wake up feeling frustrated and helpless because I'm so tired and it feels like I've already wasted half the day. It's a cycle that's hard to break, and it's really starting to get to me.

Option 3



So, here's the deal. I know I should stop scrolling, but I just can't. It's like, when I need to sleep, my brain's all like, 'Nah, let's keep going!' I'm stuck on this app, just mindlessly scrolling, and it's driving me nuts. I feel so frustrated and helpless, like I'm trapped in this endless loop. The worst part? It totally wrecks my next day. I wake up late, feeling like I've already wasted the whole day. It's a vicious cycle, and I just can't seem to break free.