2-29-2024

Provost Presents Faculty Research Series: "Childhood and adolescent obesity treatment interventions: Where are we now and where do we need to go?"

Neal Malik

Provost Presents Faculty Research Series

"Childhood and adolescent obesity treatment interventions: Where are we now and where do we need to go?" by Neal Malik (February 29, 2024)

In this presentation, Dr. Neal Malik, Associate Professor in CSUSB's Department of Health Science and Human Ecology, will discuss future approaches to the treatment of childhood and adolescent obesity.

Only 1% of scientific publications have focused on the health of children and adolescents, yet rates of obesity and disease within these groups are increasing. Short- and long-term health effects of obesity include increased risks for Type 2 diabetes, cardiovascular disease, and cancer. Yet, the traditional model for obesity treatment does not appear to be effective. Dropout rates within weight management interventions range from 50-65%, on average. New approaches to this significant health crisis are critically needed.

START – 00:00:00

1

Speaker: I'm everyone. Thank you so much for joining us, for this installment of Provost Presents Faculty Research at CSUSB, I'm Rebecca Lubas, your Dean of Libraries, and I am so delighted to be partnering with the faculty center for excellence to host this.

2

Speaker: and I am also delighted that we are starting a series of we are going to be blinded by science. So the theme. This semester is

3

Speaker: topics. from the College of Natural Sciences, and I think I think we've slipped another social and behavior sciences in there. But I'm really happy to feature and showcase another area of our university, and I am going to oh, one very important point. For those of you who are here in person.

4

Speaker: There is water on the table, so stay hydrated. There is also in the fridge in the corner, if you like cold water, there's cold water, and there is coffee in tea. So please, please, help yourself to the refreshments during the talk as well. So now I will turn it over to our esteemed provost to introduce our speaker and do those honors. This is the provost presenting part of the provost present.

5

Speaker: Hi! Everybody

6

Speaker: saying, how do the people out there? Oh, sure, we get a little a little green layer, and you know, people are all on zoom all the sudden. I tell you, Southern California's what a fickle lot in any case. It is my pleasure to be here with you all again, and and I'd like to before I forget. Thank Dean Lubas for

7

Speaker: coming up with this idea to celebrate and acknowledge and recognize and hear about all the great research that our faculty here at CSUSB are engaged in. I just got out of a meeting and thi and I'll shut up in just 5 Si mean, I'm not gonna even introduce Neil. I'm just, gonna you know. Just say, here he is, but just I mean, really. And I mean this sincerely like.

8

Speaker: I just gotta have me where I was talking about how

9

Speaker: ineffective we are.

10

Speaker: and Brian's heard me say this before at

11

Speaker: telling our story

12

Speaker: in in kind of a celebratory marketing sense like we do a good job of pushing information out

13

Speaker: about achievements to, you know, kind of media outlets and things like that. But from a marketing standpoint like we do a lot of really big things here at CSUSB,

14

Speaker: and and we need to be better at kind of celebrating and marketing, and telling even our our neighboring communities more about the kind of things that that we have going on.

15

Speaker: And and some of the expertise we have here on campus, and how that can benefit our students in our community. And and Dr. Malik's work you like that segue is, is is is no exception to that.

16

Speaker: So anyway. So so thank you, Rebecca, for for coming up with this idea? And for all that you've done in our what is apparently grossly underfunded library. I just learned

17

Speaker: I and I'd I'd make a comment that I yeah scrappy, scrappy, small, but mighty or not small, anyway. We're apparently 23 out of 23 in the system in terms of funding. But we'll we'll we'll do better anyway. So so II digress.

18

Speaker: It is an honor to introduce today's presenter, Dr. Neil Malik. Associate Professor in the Department of Health, Science and Human Ecology.

19

Speaker: Dr. Malik, who has worked in higher education since 2007, joined our campus community in September 2019, and has been quite busy for the last 4 years, in addition to teaching an array of courses ranging from stress management.

20

Speaker: Can you help me out to to medical nutrition therapy? He serves as the program Director for the Master of Science in Health Services Administration and the Program Coordinator for the Bachelor of Science in Health Services Administration. Additionally.

21

Speaker: he has received 5 internal grants, presented research at 6

22

Speaker: refereed conferences, authored or co-authored. 12 refereed peer reviewed publications and served as editor for 2 upcoming textbook chapters for the Academy of nutrition and dietetics. Health professionals, guide to dietary supplements. So all those things I just throw in my mouth indiscriminately. You can tell me whether or not I should

23

Speaker: okay, great, perfect, perfect. He also hosts a free daily, podcast.

24

Speaker: Optimal health, daily on health, wellness, nutrition, lifestyle management, stress management and health promotion which I will download while we're in here, or or subscribe to, or whatever it is that we do with podcasts. I don't know. I just listened to the car episodes of his show, which began in June 2017 have been downloaded more than 30 million times. Wow.

25

Speaker: According to listen notes. The podcast ranks in the top point 5% of global podcasts. And in August 2019, prevention magazine ranked his show as one of the 25 fascinating health and fitness podcasts to get obsessed with. I can dig that alright. Dr. Malik's research areas include adult and adolescent weight management, health behaviors among college students and appetite hormones.

26

Speaker: Renowned nutrition and wellness expert. He's been featured in over 70 media outlets, including C. C Cbs about Cs Ucs, USB, Cbs local radio in Los Angeles and Men's Fitness Magazine. In his presentation today, titled childhood and adolescent obesity, treatment interventions. Where are we now? And where do we need to go. Dr. Malik will discuss future approaches to the treatment of childhood and adolescent obesity

27

Speaker: before we welcome him. He's also a stellar guitar player and is thinking of starting a band here on campus and is looking for other band members, so afterward feel free to hit him up about that. But in the meantime, please join me in welcoming Dr. Neil Mallee.

28

Speaker: Thank you.

29

Speaker: Thank you so much. Appreciate that. Such

30

Speaker: A nice. welcoming introduction, he said. I was a stellar guitar player. He asked me if there's anything

31

Speaker: that you should know about me, maybe, like other things that people may not know. And I said, Well, I play guitar.

32

Speaker: I didn't say I was good at it.

33

Speaker: though. But thank you, I appreciate that. So yeah, childhood and adolescent obesity, treatment and interventions.

34

Speaker: Where are we now? And where do we need to go? And what you'll find is, I wish I had an answer as far as where we need to go.

35

Speaker: If I knew the answer to that, I think I'd have a billion dollars by now. But we don't.

36

Speaker: What I'll do is suggest where I think we should go.

37

Speaker: I want to first acknowledge again. Thank you to Provost Mohammed. Thank you to the Dean of the library for inviting me to present today, but I also want to thank my colleagues, who

38

Speaker: I often collaborate with.

39

Speaker: and so Dr. Wagner do. Prado, Dr. Mara Lafrado do Prado, Sara Lapin, Dr. Hill. All these folks

40

Speaker: sort of

41

Speaker: had an influence on this presentation, so I want to be sure to acknowledge them as well, and I frequently collaborate them on research.

42

Speaker: So it's it's a must that I acknowledge them also conflict of interest as provost, Mohammed mentioned. Yes, I do host my own. Podcast and today I'll be talking about social media, which is sort of involved in that.

43

Speaker: So I want to make sure that you know whatever I say about social media. It had no influence on my relationship with my podcast or this company.

44

Speaker: So I want to talk about why?

45

Speaker: Because that's always most important. Why are discuss this topic. If we're not clear, then

46

Speaker: where are we now?

47

Speaker: And finally, where we might go from here.

48

Speaker: So why even discuss this?

49

Speaker: If we look at this image. normal heart on the left.

50

Speaker: abnormal heart on the right.

51

Speaker: What we're seeing here is ventricular hypertrophy. We want the heart to be strong and muscular, but it becomes too muscular like this.

52

Speaker: Now it's less efficient.

53

Speaker: And so this was an article that came out from scientists, from researchers that looked at

54

Speaker: children.

55

Speaker: and they looked at their heart and heart function, and they found that arts that looked like this belonged to children as young as 8,

56

Speaker: which was unheard of 20 years ago.

57

Speaker: This was presented at the American Heart Association, gathering back in 2015,

58

Speaker: and one of the researchers said

59

Speaker: this was unexpected. We did not expect to see heart disease at such an early age. But yet this is what we're seeing.

60

Speaker: Type 2 diabetes was called adult onset.

61

Speaker: It is no longer called adult onset, because we see it in younger and younger children.

62

Speaker: So let me pause for a second.

63

Speaker: Whatever I teach, I sort of have to go to audience participation. So what I like to do is ask

64

Speaker: what you think and what my students think.

65

Speaker: I'll show you some. I'll give this multiple choice. So you don't have to guess out of nowhere but approximately, how many us children adolescents are obese according to the latest data.

66

Speaker: So let me stop sharing. Let me see if I can access this. and you can participate. So if you go to mentee.com

67

Speaker: just like it says up here, and of course those joining on Zoom can do this as well.

68

Speaker: menti.com, and I'll reshare my screen. Sorry about that. It disappeared. Here we go.

69

Speaker: and I know it's covered. It'll come back. The code. You need this code.

70

Speaker: How many children and adolescents in the Us. Supporting the latest data are obese.

71

Speaker: 8 million. 10 million. 13,000,015. And the responses are hidden for now because I didn't want you to be influenced by each others.

72

Speaker: it working. Working.

73

Speaker: Yeah, I figured we might know percentages, but not actual numbers.

74

Speaker: And I'd like sometimes showing actual numbers sometimes

75

Speaker: and impact. So

76

Speaker: in the essence of time, I will go ahead and

77

Speaker: see what, how you all responded, those that responded. And you're correct 15 million. Most of you are correct. It is 15 million. Yeah.

78

Speaker: So we'll come back to Menti one more time before I finish. So let me go back to my presentation and reshare my screen.

79

Speaker: So yeah, it is 15 million. And like, I say

80

Speaker: again, these these numbers are

81

Speaker: sometimes a little bit more revealing than percentages. It has doubled. This rate has doubled between 2010 to 2020. And, in fact, if we think again in real terms.

82

Speaker: we're talking 15 million people, which would be all the individuals in Los Angeles County plus New York City.

83

Speaker: That's how many we're talking about. Not Los Angeles City, the county of Los Angeles, plus

84

Speaker: those living in New York City proper.

85

Speaker: When we look at the trends. You can see the Cdc data

86

Speaker: by age, different age groups and year.

87

Speaker: It's almost like a straight line.

88

Speaker: But when we look at studies performed within these age groups.

89

Speaker: If you do a search on Google Scholar, you'll find about only 1% of scientific publications are focused on the health of children, adolescents. And yet we've known this trend for a long time.

90

Speaker: Overweight, and obesity increase the risk for cardiovascular disease and type. 2 diabetes, which is why we care about it so much, and we talk about it so much.

91

Speaker: In fact, many pediatricians recommend that we monitor children by the age, by age 10, or by the time they hit puberty for both cardiovascular, cardiovascular disease and type, 2 diabetes, which is something that was unheard of.

92

Speaker: For the purposes of this I'm going to. When I say adolescence, I'm talking about those between the ages of 12 and 19. Just so we have some context.

93

Speaker: Children would be below the age of 12

94

Speaker: what we're finding. And I'll say this again, as children grow up, you'll see some data that showed.

95

Speaker: Well, wouldn't they grow out of their obesity or overweight? No.

96

Speaker: what we see is they tend to remain overweight or obese as they get older

97

Speaker: up until 10 years later, which is what some of the data show.

98

Speaker: The problem is into adulthood. We see that

99

Speaker: overweight and obesity causes systemic inflammation which increases the risk for diseases head to toe.

100

Speaker: What you don't see on here is even Alzheimer's severe form of dementia.

101

Speaker: There's an increased risk of that. But basically.

102

Speaker: you see, a lot of cardiopulmonary issues. but head to toe

103

Speaker: or Wayne. Obesity increases the risk for all of these, and it doesn't mean this is going to cause them necessarily. But of course, we're talking about risk.

104

Speaker: So again, we're discussing this topic because

105

Speaker: of these, y's compared to the normal weight their normal weight peers, obese adolescents are more likely to suffer from depression, shame, bullying, and anxiety. All of these may then contribute to weight, gain.

106

Speaker: and then prevent engagement and weight management interventions. and, like, I said.

107

Speaker: obesity during adolescence is associated with an increased risk of obesity in adulthood about 90%. According to some studies.

108

Speaker: 90% of those adolescents with obesity remain so 10 years later.

109

Speaker: So this is all of the why, why we care.

110

Speaker: So as far as obesity treatments, we know what's going on. Of course, people are trying to do things about this to

111

Speaker: make sure our children and our adolescents are healthier.

112

Speaker: the treatments kind of go like this.

113

Speaker: The doctor will recommend something. and then the patient doesn't follow it.

114

Speaker: And this is not just adolescents or children. This is adults, too.

115

Speaker: We do the same thing.

116

Speaker: We find that, based on many, many studies, the traditional model for obesity treatment among children, adolescents and adults does not appear to be effective.

117

Speaker: But when we talk about adolescents and children and pediatricians. We know that they are the first point of contact

118

Speaker: for most families

119

Speaker: when it comes to hey? What what should I do about my child's weight.

120

Speaker: Medical doctors are often the first point of contact. The problem is, when you talk to medical doctors.

121

Speaker: what they'll say is. I don't know how to address this problem.

122

Speaker: I don't know where to start. I don't know what I should be recommending.

123

Speaker: More than 80% of medical doctors identify time as a barrier, another barrier to care. I just don't have the time they need follow ups. They need reinforcing.

124

Speaker: others said, a lack of collaborative support.

125

Speaker: This is why we're facing this issue.

126

Speaker: Caregivers need to be involved. Is there anything the community can do?

127

Speaker: I'll touch on these things. But here are the usual recommendations.

128

Speaker: This goes for dieticians as well, of which I am one. we'll say.

129

Speaker: eat more nutritious foods like my plate. What my plate recommends, which is here.

130

Speaker: Just eat these portions

131

Speaker: and make sure your plate is filled with this.

132

Speaker: and you should be good. By the way, stop drinking soda and get out there and move

133

Speaker: the Surgeon General's recommendation. Most health agencies recommend that children, adolescents get 60 min minimum.

134

Speaker: a vigorous intensity, activity every day.

135

Speaker: So these are the recommendations. And yet they're not doing it. And again, adults aren't either.

136

Speaker: So here's what we're sort of up against

137

Speaker: this trying to balance this idea of as children move into adolescence, into adulthood.

138

Speaker: They're fighting more autonomy, or they're trying to become more independent. And yet we're telling them what to do.

139

Speaker: But at the same time. Oh, we want you to be independent, but no, eat like this don't do this

140

Speaker: and that often outweighs, especially in this life, stage

141

Speaker: healthful behaviors. Because there's this idea of invincibility.

142

Speaker: it's not going to happen to me. I'm healthy now. I know I experienced that.

143

Speaker: But really. if they're becoming more autonomous.

144

Speaker: This is actually the best time to establish long-term behaviors.

145

Speaker: This is the time to ingrain some of those habits.

146

Speaker: But there's gonna be that resistance because you're telling me what to do.

147

Speaker: what we've found with even children and adolescents. Long-term behavior change happens

148

Speaker: when people are motivated to change are confident

149

Speaker: to do so and have the appropriate support.

150

Speaker: Patient-centered clinical care, incorporating, shared decision-making

151

Speaker: improves health outcomes.

152

Speaker: which means it needs to be a bi-directional conversation.

153

Speaker: Parents and caregivers play a very important role in helping adolescent engagement and compliance with health behaviors, which means we can't ignore the caregivers because they're the ones that buy the food.

154

Speaker: They have the authority plus

155

Speaker: the medical system also needs to be involved.

156

Speaker: because hopefully, they know what's best. Families may not know what's best.

157

Speaker: So what if we just asked

158

Speaker: what would get you to move more

159

Speaker: or eat more fruits and vegetables.

160

Speaker: or sleep more. Maybe that's not so much a problem.

161

Speaker: Use your phone lap.

162

Speaker: What we see is adolescents are rarely asked

163

Speaker: these questions.

164

Speaker: but many researchers admit that their perspectives may actually be valuable

165

Speaker: health programs and practices that focus solely on the individual's responsibility for behavior change. What we know is when we say, Hey, it's up to you to lose your your weight here, just do these things. They're often unsuccessful.

166

Speaker: The argument to this idea, though, is, we should just ask them, is that well, they don't know what they don't know they're not the experts. They don't know what they should be doing.

167

Speaker: But that's not what we're asking. What we're asking them is what would motivate you to do this.

168

Speaker: What would help get you to move more? Use your phone, less things like that.

169

Speaker: So I've been sort of hinting at it. Where should we go from here.

170

Speaker: Well, one solution may be just to ask them.

171

Speaker: and I swear marketing agencies know more about human behavior than not to insult the psychologists in the room

172

Speaker: psychologist, a psychiatrist. And the only reason I say that is because I'll show you some patterns.

173

Speaker: Could we learn a lot from marketing?

174

Speaker: I don't know why we don't, as health professionals tap into what marketers do and sort of use that

175

Speaker: because it works.

176

Speaker: When we look at social media use 87% of those that identified as female Instagram users follow nutrition-related content on the platform.

177

Speaker: 87%. According to this study.

178

Speaker: food and nutrition content. It's always around. It's bombarding us whether we follow it or not.

179

Speaker: It's just there. It'll just pop up. So even if we don't follow

180

Speaker: these things, we're still gonna get exposed to it.

181

Speaker: And we know, this happens because of algorithms.

182

Speaker: And we know, based on that, there are sponsorships

183

Speaker: that target people. Specifically.

184

Speaker: they don't like to waste their money, these companies. So they are very specific about who's likely to change behavior.

185

Speaker: One of the key marketing principles.

186

Speaker: And I didn't make this up, and I'll cite where this came from

187

Speaker: is lookalike audiences.

188

Speaker: What that means is people that look alike tend to like each other more if they look like somebody, they tend to like them more. These are 2 different actresses. Jessica Chastain on the left, and Bryce, Dallas Howard on the right.

189

Speaker: And yet people often can't tell them apart. They look, they look so similar. What we'd say is, we predict that they would like each other more because they look so similar.

190

Speaker: Javier Bardem and Jeffrey Dean Morgan. Another example. they'd say, Well, you 2 look alike, therefore you probably like each other more.

191

Speaker: and then this random baby and born ramp.

192

Speaker: He would love this baby more.

193

Speaker: So

194

Speaker: this is according to Facebook, and I'll cite it at the bottom. A lookalike audience share similar characteristics.

195

Speaker: characteristics to your existing customers. And again, I quote Facebook directly you can find this. they use this, they do this because they know it works

196

Speaker: to create a lookalike audience. Our system algorithm leverages information such as demographics, interests, and behaviors from your source audience to find new people who share similar qualities.

197

Speaker: When you use a lookalike audience, your ad is delivered to the audience of people who are similar or look like you're existing customers.

198

Speaker: This is

199

Speaker: foundational concept among marketers.

200

Speaker: So we actually

201

Speaker: could learn from this if we take a deeper dive into how

202

Speaker: things are marketed, not just to adults, but to children.

203

Speaker: If you've ever seen a happy meal ad, you'll never see people enjoying a happy meal that look like this.

204

Speaker: They always look like

205

Speaker: adults, typically aren't interested in a happy meal. They're targeting children. That's why they offer a toy.

206

Speaker: In fact. when we look at

207

Speaker: the impact of marketing to children

208

Speaker: each year, it's a little different, but about 7 billion dollars is spent on advertising fruits. Vegetable. Excuse me, 7 billion dollars is spent marketing

209

Speaker: through children, adolescents, but only 159 million out of that 7 billion, only 2.2% of that is spent marketing the whole unprocessed foods that we want.

210

Speaker: So the majority of it

211

Speaker: that 97.8% is marketing things like Mcdonald's and profits.

212

Speaker: Children on average, see about 51 h of television advertising per year.

213

Speaker: 40 and a half of those 51 h are for what we would consider junk foods

214

Speaker: and 2018. More than 500 million dollars was spent by advertisers on social media influencer marketing.

215

Speaker: And this is a direct quote from A. Mcdonald's executive according to Fast Food Nation, by Eric Schlossert. If I can get a customer at the age of 2. I've got a customer for life.

216

Speaker: So they know the impact on behavior. Because that's what we're talking about

217

Speaker: marketers change human behavior. Because by buying a product

218

Speaker: by switching to a product. you're changing behavior.

219

Speaker: Isn't that what we're about in the health industry changing behavior.

220

Speaker: Yeah.

221

Speaker: when we look at social media use.

222

Speaker: we find that influencers and celebrities on social media. when children and adolescents look at them.

223

Speaker: Actually, that led to reduced motivation, to exercise and eat nutritious food.

224

Speaker: So even though these folks are trying to influence, maybe and say, Hey, buy my product. Look how fit I am. It's actually doing sort of the opposite adolescents who spent 2 and a quarter hours or more per day on social media.

225

Speaker: add a 3 plus times greater chance of selecting food presented on social media compared those

226

Speaker: to those with that spent fewer hours.

227

Speaker: So again, what's going to be on social media? It's going to be processed foods, junk foods. It's not going to be fruits, vegetables, and all those things

228

Speaker: which is what they're constantly bombarded by.

229

Speaker: They are also more likely to eat fast food at least 3 times a week.

230

Speaker: I don't know if you've ever carefully looked at the grocery store aisle. serial aisle

231

Speaker: is one great example of this concept of marketing.

232

Speaker: Where do you find the nutritious cereals as I like? I, as a dietician, would recommend. Yeah, it's going to be up here.

233

Speaker: Is that an accident?

234

Speaker: Marketers know what they're doing?

235

Speaker: The grocery store aisle is by design.

236

Speaker: and actually some of the not so

237

Speaker: bad quote unquote foods you can find on the bottom shelf, too. Those are decent.

238

Speaker: but top and bottom. What is right

239

Speaker: waist level.

240

Speaker: It's your why?

241

Speaker: Because when they go down the aisle with their caregivers

242

Speaker: right at high level for them.

243

Speaker: Not an accident.

244

Speaker: Companies pay extra to have their products right here.

245

Speaker: not an accident.

246

Speaker: So not only are these cereals bright at eye level for these children adolescents walking by, but they're brightly colored, and they often advertise a toy something else. They'll show a picture of another child enjoying it, eating eating it. Excuse me, so

247

Speaker: they know what they're doing. They have it down to a science. And, in fact.

248

Speaker: if you went home today and looked at your cupboards, your pantry, your refrigerators.

249

Speaker: we'd often find that the first foods we see are probably the foods. We don't want to consume all that. All

250

Speaker: those are the audience. Where do we put our vegetables

251

Speaker: in our refrigerator? Right? But where in the refrigerator

252

Speaker: Crispr drawer, where it's tucked away and hidden, and we never see it.

253

Speaker: And then a week goes by and we're like, What's that smell? Oh, whoops. That's the broccoli I bought a week ago that I meant to eat.

254

Speaker: Yeah. it's because it's hidden, we forget.

255

Speaker: But if it's right at eye level in a clear container, we're more likely to use it.

256

Speaker: So we see this across the board

257

Speaker: vending machines. This will be my next mentee question.

258

Speaker: which product and I'll give you a choice. So you don't have to pick from all of these. I'll give you 3 options.

259

Speaker: which product

260

Speaker: we'll sell the fastest. So let me stop sharing. I'm gonna go to Menti. So we can do this.

261

Speaker: This is what I want. Oops.

262

Speaker: That's not one.

263

Speaker: Here we go. So I gave you 3 options. We've got the peanut, M. And Ms. A.

264

Speaker: The

265

Speaker: something tricks B or crunch bar C,

266

Speaker: and if you close your mentee.com window.

267

Speaker: You forgot the code. It's up there.

268

Speaker: and I'm hiding the responses again. Just so you're not influenced.

269

Alright, let's say another 5 s to get that last minute vote in that last second vote in.

270

Speaker: let's see how we did.

271

Speaker: There were split kind of across the board, but the correct answer is, in fact. B.

272

Speaker: thank you, Provost.

273

Speaker: Why.

274

Speaker: middle middle eye level.

275

Speaker: it doesn't matter if it's healthy. Tastes good

276

Speaker: doesn't matter.

277

Speaker: Eye level always sells the fastest. So companies will pay extra to have their product right there.

278

Speaker: So all of this to say that again. we have multiple influences on behavior.

279

Speaker: eating behavior exercise, all of that stuff. We're sort of up against a lot of things.

280

Speaker: and this sounds like bad news, but I don't like to end or get close to the end with just bad news.

281

Speaker: because we're learning these things about human behavior. Some changes are being made.

282

Speaker: And Livermore, California. In fact, they tried something

283

Speaker: they didn't experiment.

284

Speaker: They wanted to encourage the consumption of plain milk as opposed to chocolate milk

285

Speaker: as opposed to juices. Things like that.

286

Speaker: So all they did was made simple changes. They increase the number of cartons of plain milk on display.

287

Speaker: they thought. Let's outnumber the cartons of plain milk to chocolate milk. Let's make that ratio plain milk to chocolate milk higher.

288

Speaker: Then they'd simply move them near the front of the cafeteria line

289

Speaker: just by doing that

290

Speaker: plain milk selection selection increased from 14 to 30%.

291

Speaker: That's it. Moved it

292

Speaker: and made more make it look like there are more available parts. That's it.

293

Speaker: They didn't have to educate. They didn't have to do anything other than that.

294

Speaker: You might be arguing that would never work for vegetables. There is no way a kid would eat more vegetables. Well.

295

Speaker: what they did was they put salad in a clear container, not in a crisper drawer.

296

Speaker: Let the kids self serve and let them take it.

297

Speaker: Then they gave them another chance to do the same thing, take vegetables

298

Speaker: at the cache station, the impulse buystation.

299

Speaker: and they found that the students who took did take the vegetables.

300

Speaker: and that didn't just throw them away. They actually ate them.

301

Speaker: because that's the other problem is, they might buy them, but it just goes directly into the trash.

302

Speaker: Nope, they actually hate them.

303

Speaker: Student consumption of vegetables increased 70,

304

Speaker: and they all they did was put them in clear containers

305

Speaker: and put them in 2 spots.

306

Speaker: But where do we go from here? All of this? So how can we distill this into something that might be

307

Speaker: usable

308

Speaker: when I say we, I say my colleagues.

309

Speaker: Dr. Goprado, for example, in the Kinesiology department.

310

Speaker: putting our heads together, and we're trying to propose first.

311

Speaker: instead of imposing things on children and adolescents. Why don't we just ask them, why don't we assess their needs and wants?

312

Speaker: My background is in public health, assessing needs and wants is a fundamental concept in public health. That's the first step to anything. We're forgetting to do that when it comes to again

313

Speaker: creating obesity and overweight. Also, we know children, adolescents don't have autonomy yet.

314

Speaker: We need their caregivers involved. Ask them as well.

315

Speaker: what would you like in a program? What would you like to see. What kind of treatment would you think

316

Speaker: would help your child, your adolescent? And of course we have to ask those that know better

317

Speaker: that know the science medical and healthcare professionals. We need to ask them, too.

318

Speaker: look for common themes

319

Speaker: and create a pilot. Do something

320

Speaker: with that data.

321

Speaker: We can't forget about environmental and behavioral influences. Like I said. that's all. Always going to be involved

322

Speaker: and then try again to build a program based on

323

Speaker: themes that come up

324

Speaker: because we know it's sort of bi-directional. Each of these influence each other. This sort of goes to

325

Speaker: this is not my theory. This relates to social cognitive theory which has been around for a long time. But all of these influence.

326

Speaker: behavior change. And so we need to really

327

Speaker: assess all of these things. And hopefully, if we ask them if we consider these various components

328

Speaker: and build an intervention that

329

Speaker: attacks each of these things, we can hopefully have some long-term behavior change. Because again, adolescents is the time

330

Speaker: when it's really needed.

331

Speaker: because we see that can translate to adult behaviors.

332

Speaker: So we do need a new way of treating childhood and adolescent obesity. But

333

Speaker: we're proposing, instead of telling them what to do, which is what we have been doing.

334

Speaker: How can we best support you. How can we best

335

Speaker: help you feel your best.

336

Speaker: boy? Yeah. thank you so much.

337

Speaker: I see. Pando Kelly.

338

Speaker: Thank you. It's great talk. My question is about obesity definitions for kids. So like for adults. For example, if we don't exercise, we might be considered obese because we have too much fat and not enough muscle. If we just look at a kid. And we tell if they're obese, or is it similar? Kind of.

339

Speaker: you know? Bmi type analysis? Or.

340

Speaker: yeah. So the question was about, how do you define obesity for children adolescents with adults? It is a little bit easier. So what's often used is growth charts. So

341

Speaker: we know that during childhood it is common for children to gain weight right before growth spurred.

342

Speaker: But what we're finding is just the right amount of weight gained

343

Speaker: is the sweet spot too much, and that body weight can linger

344

Speaker: and can increase their risk for becoming overweight or obese as adults.

345

Speaker: So we use growth charts instead, because those have been shown to better predict and be a better, determining, determining factor when it comes to defining obesity in children, so, just by looking at a child.

346

Speaker: I would never recommend that, but rather plotting their height, their weight, their Bmi on a growth chart, would be more accurate.

347

Speaker: Okay, sure. Oh, absolutely. You're amazing. Oh, thank you. Thank you for that. Talk.

348

Speaker: in your your next steps. So your proposal. And you're asking these qualitative questions regarding what giving some autonomy to to the adolescents? Are you also going to look at individuals whom are not obese and potentially ask them, what is it that drives you to eat these things? So you kind of get both perspectives?

349

Speaker: Absolutely. Yeah. And that's a great point, Dr. Riemann, that

350

Speaker: what is it that they're doing, if anything, that's different from

351

Speaker: what these other children are doing? Yes.

352

Speaker: most definitely

353

Speaker: so. My question was, I have heard a lot about one of the challenges to get kids and adults, for that matter, to eat their fruits and vegetables

354

Speaker: is the consistency issue. That processed foods have a nice consistent you know, mouth, feel and and taste, and you know you get a bunch of blueberries. One blueberry is sweet and crunchy, and one might be sour and mushy. And that's a huge problem. So do you have some ideas for for that

355

Speaker: issue.

356

Speaker: another challenge that we face. Why do most people prefer white bread as opposed to whole grain texture. Even as adults.

357

Speaker: it's it's preferred.

358

Speaker: So what's often recommended is involve the child or adolescent in

359

Speaker: designing a recipe grocery, shopping and preparing. It's sort of then

360

Speaker: neutralizes some of the maybe finicky picky eaters, because

361

Speaker: what they found from research. This isn't my opinion. What they found is that by involving them like that they get great joy and pleasure, watching everybody enjoy the food they helped create.

362

Speaker: So that's one

363

Speaker: that might help doesn't work for every child, but getting them involved, letting them have some autonomy and what we eat tonight

364

Speaker: the long way.

365

Speaker: Next question.

366

Speaker: That was a great talk. Thank you. So

367

Speaker: I guess I'm I'm curious about studies of social media influencers for adolescents. I'm saying this because in my own experience with my son. He's big into Tiktok and all this stuff Snapchat and he started cooking and like making healthy things.

368

Speaker: and I was like, What are you doing? You're destroying my kitchen. But at the same time he was making healthy food for himself at like 1516 years old, because he was imitating this person on Tik Tik tok, literally going through the video and making the food. So I'm wondering if there have been studies about social media influencers for adolescents.

369

Speaker: and there that how that influences their eating, behavior or exercise

370

Speaker: absolutely, and, in fact, that the data I shared where sort of the opposite happened. Like those

371

Speaker: children, adolescents who spent more time on social media tended to do less of those things like cooking and exercising. That was actually from a meta-analysis. So there seem to be studies that show the opposite effect of what we would think would happen in that if they're watching someone eat nutritious foods, cook healthy, and exercise.

372

Speaker: and say that, hey, they owe their body to these things. We would expect them to follow the viewers to follow.

373

Speaker: But this met analysis found sort of the opposite. So it is interesting, because that's not what I would have predicted, either. I thought it would have helped

374

Speaker: motivate, but

375

Speaker: seems, yeah, again, the opposite map.

376

Speaker: or they need more. So yeah, most likely they need more studies. I mean.

377

Speaker: the whole issue with metaalities. Right? Is the heterogeneity like the studies were different and how they looked.

378

Speaker: That's their sample and analyze the data. And

379

Speaker: that was a big potential flaw is that the studies are conducted so differently that we definitely need more.

380

Speaker: Thank you. So I had a question about how to how to bring in the genetic piece to all of this. So, thinking about within a single family, right? One kid takes after one parent, the other kid takes off the other parents, their food or their exercise habits are are all equal. So how is that being looked at? How do you take that into account?

381

Speaker: Genetics?

382

Speaker: this is what's fun about

383

Speaker: heritability of body weight.

384

Speaker: Some scientists say it only counts for 10%

385

Speaker: of the likelihood that

386

Speaker: that child will become overweight or obese. Others say it's over 50%.

387

Speaker: So the range goes from like 10% heritability to 60 depending on which research are we talking about?

388

Speaker: So

389

Speaker: I tend to sort of stay away from the genetic argument only because one we don't know. But second.

390

Speaker: I don't want it to be an excuse, so I want them to be able to take ownership and

391

Speaker: try at least to do some of these behaviors. and not just say, Oh, it was my genes.

392

Speaker: So I say another reason, we need more studies on the heritability. But I sort of refocus the attention on okay, what can we control

393

Speaker: and go

394

Speaker: and use that as sort of the tactic. Did that answer your question here?

395

Speaker: My question? No, no, about moving?

396

Speaker: No.

397

Speaker: it's kind of a follow up to what she just said. So body weight. It's a polygenic trait. So it's controlled by many, many parts of the genome and something that is being fairly new and apparently has a lot of impact is epigenetics, and it's a really new field that we don't know anything about it. And it's a long-term thin. And in fact, it can be passed down. So I don't know if

398

Speaker: it's also something that there are some studies on it that you think might be interesting and

399

Speaker: something to take into account absolutely.

400

Speaker: are you from the biology department by anything? Oh, you don't know me. Oh, my God.

401

Speaker: yeah, we seem to know a lot about. okay.

402

Speaker: So

403

Speaker: yeah, they've actually done small, very small studies with twins. And I guess this goes also back to Carol's question. So

404

Speaker: with twins. What they found is those raised in different environments can still grow up to become overweight or obese, which sort of argues for the genetic part.

405

Speaker: But epigenetics is being studied with overweight and obesity, especially among adults. I'd say a lot of the researchers with adults. And so what we're talking about is the idea, and of course the biologists in the room can correct me is that we may have sort of the underlying genes for overweight or obesity, but those genes may never get switched on.

406

Speaker: What happens is maybe something in the environment triggers that gene to then get switched on, which then can lead to overweight or obesity

407

Speaker: that is being studied.

408

Speaker: And there is.

409

Speaker: There are some researchers who swear that that's what's going on, that

410

Speaker: because we're seeing this spike

411

Speaker: within a relatively short period of time

412

Speaker: in overweight and obese. We saw the line just going up like this that it cannot just be just genetics, that there's something else happening.

413

Speaker: and they, of course, blame the usual sedentary lifestyle

414

Speaker: processed foods. Those kinds of things are sort of the go-to. When it comes to switching potentially those over yeast genes off.

415

Speaker: It is being looked at absolutely

416

Speaker: alright. Now the mic is mine. First of all, thank you. This is a just an incredibly interesting talk. I was supposed to leave, and I couldn't, because I honestly, I was just really captivated. So I'll skip my, I have a Meta question, but I'm going to reduce it to a

417

Speaker: I'll skip the question about why your podcast is biased against android users, and and therefore not like in the Google play store. I'll I'll skip that I'll skip. The question about was that your food covered with the nutella and milk, chocolate and stuff. But we don't wanna hear that. Yeah, serious question. So

418

Speaker: it seems, you know you at the beginning, your talk. You were talking about kind of medical interventions and kind of kind of medical advice. And so, my, my.

419

Speaker: I don't have kids, so I don't know what happens in K. Through 12. But I remember when I was in K through 12, and we had, you know, recess. We had gym that was kind of required. There was this big push to like athletics and things like that to keep kids more active. Right? There was that whole

420

Speaker: presidential physical fitness thing where it's like, how many sit-ups and how many push-ups and all that other kind of stuff that I assume. Now they don't do because it might stigmatize kids or something like that.

421

Speaker: I don't mean that in a flippant way, I mean, I'm by just assuming that. So my question is, what about non-medical, widespread K. Through 12 curricular or cultural interventions that would get at

422

Speaker: without having to say, Give someone a shot or or try to treat some of this medically. To what extent are we? I know the Obama administrator, Michelle Obama. That was one of her platforms. There's a lot of political pushback. But what are we doing in that space to kind of get at some of the outcomes that that might be

423

Speaker: that that might curtail some of the expansion in childhood obesity. Yeah.

424

Speaker: First, I'll get my team on the problem with the android. I have an android, too. And that was not my cupboard. That was not my pantry. It was one of my patients, and that they let me share this. So

425

Speaker: one of the things that they're trying to do is getting cooking back in schools.

426

Speaker: So in San Diego County. They implemented in some of the public schools a farm to table sort of program. So children get to see what it's like to grow certain vegetables and herbs.

427

Speaker: Design a recipe around that, and then within the classroom they have ovens and stoves, and they cook

428

Speaker: those things that they pick

429

Speaker: so they've been trying that, and I was lucky enough to go in there and observe. And the children just love that class. It's offered as as an elective in middle school

430

Speaker: and based on the success of that, they're hoping to expand it. And it seems like they're expanding in San Diego County. Hopefully, it'll come out here. But those are some of the initiatives that are happening. Get them

431

Speaker: cooking, get them designing recipes

432

Speaker: so that they can see what and feel what I'm

433

Speaker: bounce. Meal would look like. That's the one probably

434

Speaker: bigger thing that I know that's happening. But I know that there's always a new idea, a new something that they're trying. But that one seems to be getting a little bit of seam. So I'm hopeful.

435

Speaker: Bruno.

436

Speaker: quite have some questions on this. Yeah.

437

Speaker: yeah, I agree.

438

Speaker: So the question in the chat.

439

Speaker: how would one help a child who has parents who may have mental health disorders overcome childhood obesity. Where would the child that child's community or support come from?

440

Speaker: That's that's a tough question. I

441

Speaker: I would hope that again it would be sort of a healthcare team based approach here

442

Speaker: where maybe we can involve a therapist, a psychologist

443

Speaker: as well as their primary care. the dietitian nutritionist.

444

Speaker: But that would absolutely be a challenge. It's it's not something that would be easy. And in fact, none of this is easy.

445

Speaker: But that would actually add, another layer for sure. But again, I would have to rely on the team

446

Speaker: that made my recommendation.

447

Speaker: Thank you, Neil. How do these childhood obesity rates track with ses status because you mentioned, like the lack of physical activity. And I think that for some children

448

Speaker: they're one of the barriers is because they don't live in safe neighborhoods. They don't feel safe, you know, running or playing.

449

Speaker: they sort of go. They track together. What we see is

450

Speaker: lower socioeconomic status

451

Speaker: definitely increases the risk for overweight or obesity. And you're right. It has to do with not just unsafe neighborhoods, but access to foods. We can't just tell someone

452

Speaker: who makes $30,000 a year. Their caregivers make $30,000 a year. Go, buy organic, go, buy fresh fruits, and it's just no way. So yeah, that absolutely plays a role. And that's something we're considering in sort of the research we're proposing.

453

Speaker: What? How do we advise those where

454

Speaker: those individuals who, where health may not be the priority, but rather the next paycheck is the priority.

455

Speaker: How can we get those folks to

456

Speaker: move more, eat more nutritiously, and it's a challenge.

457

Speaker: but they go hand in hand for sure.

458

Speaker: So I think we have time for one final question. I saw the illustrious Dr. Haddock's hand go up a little while ago. So

459

Speaker: I was just wondering what those lazy people in kinesiology are. No, I'm just using but you mentioned the activities at school and things like that. Are you aware of any programs that we meaning Cal State? San Bernardino are doing to interact with

460

Speaker: K. 12 programming?

461

Speaker: All I know is what I and my research team have done. But

462

Speaker: no, yeah, I mean, I'm not saying it's easy, because I know I've tried. When I did some research in the public schools. And I ended up

463

Speaker: giving up on the public schools and going to the privates.

464

Speaker: Yeah, so

465

Speaker: because the public schools. Just put roadblock after roadblock. And but I mean, I do think that's one of the big things that

466

Speaker: we could do, and it'd be a great service and research opportunity for our students. But

467

Speaker: we have to get school boards on it.

468

Speaker: on.

469

Speaker: You're absolutely right. We have tried

470

Speaker: for the last 2 years at least, if not 3. Now, to get public schools on board with what we've been trying to do, we got to the level of the superintendent of the San Bernardino school district, and that's where it stopped.

471

Speaker: So

472

Speaker: yes, it is a challenge to get them involved. We're not giving up.

473

Speaker: but collaborating, and I should probably have a better idea of what other faculty are doing within the K. 12 system and collaborating with them

474

Speaker: absolutely.

475

Speaker: Buddy, I said no more questions. But go ahead. No, go ahead. Go ahead, go through. It's your shot

476

and

477

Speaker: beautiful

478

project.

479

Speaker: Foster.

480

I think it.

481

Speaker: I know

482

Speaker: I would love that. And yeah, please do, because we

483

Speaker: we are so looking forward to moving forward. So

484

thank you.

485

Speaker: Great. Well, Dr. Mark, thank you once again for this. This is incredible. I really appreciate it. And I look forward to hearing more.

486

Speaker: Got it? Thank you.

487

Speaker: Yeah, it's

488

Speaker: thank you very much. Please keep an eye on the library calendar for the next installment. I think it's March thirteenth. Oh.

489

Speaker: awesome! And the the speaker was actually in our audience. But so please come for the next installments. March thirteenth.

490

Speaker: same bat time, same bat channel.

491

Speaker: Thank you. Everyone.

END – 00:51:58