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5 **‘Problem patients and physicians’ failures’: What it**
6 **means for doctors to counsel vaccine hesitant patients in**
7 **Switzerland**

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19

20 **Abstract**

21 This article reports on our qualitative inquiry into the meanings biomedically trained
22 doctors in Switzerland attach to treating vaccine hesitant (VH) and underimmunized patients.
23 With support from social science literature on ‘good’ and ‘bad’ patients and doctors, we
24 explore how both doctors and patients cross the boundaries of these conceptual categories in
25 situations involving vaccine hesitancy and underimmunization. The doctors we interviewed
26 (N=20) and observed (N=16 observations, subsample of 6 doctors from the interview sample)

27 described how they screened, measured, and diagnosed patients' levels of vaccine hesitancy.
28 Our results emphasize the meanings doctors associated with counseling hesitant patients,
29 especially while managing their own professional responsibilities, legitimacy, and reputations
30 among colleagues and patients. Doctors' discourses constructed the figure of 'problem
31 patients,' characterized through their (potential) non-adherence to vaccination
32 recommendations, desire for lengthy consultations and individualized counseling, and
33 dogmatic ideologies running contra to biomedicine. Discussions around the dilemmas faced
34 by doctors in vaccination consultations brings to the fore several key, yet underdiscussed,
35 paradoxes concerning VH, patient-doctor relationships, and the constructs of 'good'/'bad'
36 doctors and patients. These paradoxes revolve around expectations in Western societies for
37 'good' patients to be autonomous health-information seekers and active participants in
38 clinical encounters, which research shows to be the case for many VH and underimmunizing
39 individuals. However, in the eyes of many vaccination advocates and proponents of
40 biomedical approaches, VH patients become 'bad' patients thru their risk of non-adherence,
41 which has implications for the population at large. In these consultations, doctors find
42 themselves conflicted around the expectations to promote vaccination while, at the same
43 time, being active listeners and good communicators with those who question their
44 biomedical training and legitimacy. Understanding these paradoxes highlights the need to
45 better support HCPs in addressing VH in clinical practice.

46 **Keywords:**

- 47 • Switzerland
- 48 • Vaccine hesitancy
- 49 • Underimmunization
- 50 • Patient-provider interactions
- 51 • Good and bad doctors

- 52 • Good and bad patients
- 53 • Problem patients
- 54 • Adherence and compliance

55

56 **1. Introduction**

57 “During my training, the idea was implicitly there that we shouldn’t have people
58 who are against vaccination in our offices, almost as if it were a failure of the
59 pediatrician. It was like having problem patients. I would say to [these patients], ‘Listen,
60 that’s not OK.’ I was more judgmental. (...) After a few years, I became more interested
61 because I realized that these people were much more vigilant when it came to health than
62 the average person. Then, auto-didactically at first, I realized that my role as a doctor
63 was to respect patients in their entirety. It’s not because they refuse something that I
64 can’t be their doctor anymore. My colleagues would always criticize me. I would tell
65 them, ‘If I was an oncologist and a patient refused chemotherapy, ‘It’s ok!’ I can still be
66 their doctor. It’s not because they refuse chemotherapy that I have to throw them out.’”
67 (Dr. Caspari, pseudonym)

68

69 In this statement, Dr. Caspari, a pediatrician from the French-speaking region of
70 Switzerland, covers several of the issues that this article touches upon: (1) how doctors
71 classify patients based upon vaccination attitudes and behaviors, (2) dilemmas doctors face
72 when seeing vaccine hesitant (VH) patients, and (3) how doctors’ willingness to accept these
73 individuals has repercussions for their reputations as doctors intraprofessionally and with
74 patients. Drawing upon data gathered from qualitative interviews with medical doctors and
75 observations of vaccination consultations in Switzerland, we argue that the dilemmas doctors

76 face in situations involving vaccine hesitancy (VH) often arise from paradoxical expectations
77 inherent to the social constructs of ‘good’ and ‘bad’ patients and doctors.

78 As we will demonstrate, the constructs of ‘good’ and ‘bad’ patients and doctors are
79 inherently problematic when it comes to VH. VH patients tend to demonstrate characteristics
80 of ‘good’ patients insofar as they proactively seek health information and participate in
81 consultations. However, through their potential nonadherence, they transgress the bounds of
82 acceptable patient behavior. Conversely, ‘good’ doctors are expected by public health
83 authorities to pursue vaccine recommendation adherence while maintaining communication
84 with patients whose rationales may contradict their medical training and biomedically
85 institutionalized recommendations.

86 We begin by providing a brief review of literature into vaccine hesitancy and under-
87 immunization. We next describe the important roles healthcare professionals (HCPs) play in
88 influencing patients’ attitudes and behaviors around vaccination. Then, we tie these
89 discussions into conceptual understandings of ‘good’ and ‘bad’ doctors and patients, which
90 lays the groundwork for understanding the paradoxes of norms that patients and HCPs have
91 internalized in relation to vaccination decision-making in Western societies. We conclude the
92 introduction section with information on the Swiss context, where complementary and
93 alternative medicine (CAM) use is popular and often discussed relationally to biomedicine.
94 This qualitative research was conducted in the context of a larger Swiss National Research
95 Program focusing on both routine childhood vaccinations and the human papillomavirus
96 (HPV) vaccine (Deml et al., 2019a).

97

98 *1.1 Vaccine hesitancy: A “threat” to global health*

99 In early 2019, the World Health Organization listed VH among one of ten important
100 threats to global health. The announcement called attention to a recent 30% increase in

101 measles cases globally and the importance of healthcare professionals (HCPs) as “the most
102 trusted advisor and influencer of vaccination decisions,” who need to “be supported to
103 provide trusted, credible information on vaccines” (WHO, 2019).

104 The Strategic Advisory Group of Experts (SAGE) Working Group on Vaccine Hesitancy
105 defined VH as a “delay in acceptance or refusal of vaccination despite availability of
106 vaccination services” (MacDonald, 2015, p. 4146). Scholars have criticized this definition,
107 pointing out (1) the presentation of VH as a behavior (i.e. delaying or refusing certain or all
108 vaccines), whereas hesitancy is a “psychological state” (p. 6566), (2) hesitancy is used as an
109 umbrella term that incorrectly includes those who categorically choose not to vaccinate, and
110 (3) hesitancy can be erroneously used as a causal explanation for underimmunization, while
111 other determinants of health, such as pragmatics, access barriers, and inadequate services or
112 policies, may play a larger role in vaccine uptake (Bedford et al., 2018).

113 Others contend that VH is an ambiguous notion, stating its common usage does not
114 always take into account larger socio-medical trends. Peretti-Watel et al. (2015), for example,
115 propose a theoretical framework which “considers VH a kind of decision-making process that
116 depends on people’s level of commitment to healthism/risk culture and on their level of
117 confidence in the health authorities and mainstream medicine” (p. 2). Additionally,
118 understanding VH from a global perspective poses methodological challenges because
119 “[d]eterminants of vaccine hesitancy are complex and context-specific—varying across time,
120 place and vaccines” (Larson et al., 2014, p. 2150). It is therefore important to specify our
121 consideration of VH in Switzerland, which is a rich country situated in the heart of Western
122 Europe.

123 We acknowledge these subtleties and pragmatically define *vaccine hesitancy* as attitudes
124 expressing concerns, worries, and skepticism about the safety, efficacy, or necessity of
125 vaccination. We define *underimmunization* as the behavior of not adhering to the Swiss

126 vaccination schedule (FOPH, 2019), by omitting or delaying some or all of the recommended
127 vaccines.

128

129 *1.2 Healthcare professionals and vaccine hesitancy*

130 The roles HCPs and doctors in particular play in influencing patients' vaccination
131 behaviors and attitudes have been well documented in public health and medical literatures
132 (Opel et al., 2013; Verger et al., 2015). Important factors include providers' knowledge,
133 attitudes, behaviors, communication styles, and information sources (Opel et al., 2012;
134 Paterson et al., 2016). A key factor influencing patients' vaccination decisions is trust in the
135 provider (Ames et al., 2017). For example, Benin et al. (2006), through analysis of 33
136 qualitative interviews with mothers, explain how trust in providers is a main determinant in
137 vaccination decisions: "Mothers identified as more trustworthy those relationships in which
138 their providers expressed a passion about vaccination, seemed knowledgeable, were able to
139 offer satisfactory answers to questions that were asked, did not act condescending or rushed,
140 and treated them like an individual" (p. 1539).

141 Recent VH literature focuses on building vaccine confidence and lowering hesitancy
142 among HCPs. MacDonald and Dubé (2015), for example, note that "many healthcare
143 providers are themselves vaccine-hesitant and therefore unlikely to dispel their patients'
144 concerns and doubts about vaccinations" (p. 792). This commentary responded to a study
145 showing 43% of GPs in France sometimes or never recommended at least one vaccine to
146 target patients. GPs who made vaccine recommendations, compared to those who did not,
147 were more comfortable explaining benefits and risks and reported having more trust in
148 official sources of information. This suggests that GPs' knowledge on vaccination benefits
149 and risks could be reinforced (Verger et al., 2015). Manca (2018), through qualitative
150 interviews with doctors and nurses in Canada, found that despite general support for

151 vaccination, HCPs expressed anxieties about specific vaccinations, pharmaceutical company
152 influence, vaccine novelty, and limitations of biomedical knowledge.

153 Common concerns faced by HCPs when addressing VH have also been reported.
154 Although not a recommended practice (Gilmour et al., 2011), doctors sometimes dismiss
155 families from their practices due to parental vaccine refusal, justifying dismissals by citing
156 fear of litigation and lack of shared goals and of perceived trust from patients (Flanagan-
157 Klygis et al., 2005; O’Leary et al., 2015). Another trend pediatricians face involves parents
158 requesting to delay vaccinations or to follow alternative vaccination schedules (Wightman et
159 al., 2011).

160 Researchers have examined job satisfaction among doctors who regularly counsel
161 patients about vaccination. A survey among a nationally representative sample of
162 pediatricians and family medicine doctors in the US showed that pediatricians were more
163 likely to cite lower job satisfaction when addressing vaccination concerns and questions and
164 to perceive a lack of respect toward their medical judgement in disagreements over vaccine
165 recommendations (Kempe et al., 2011). Forty percent of pediatricians and family doctors in a
166 similar US study reported lower job satisfaction due to requests to delay vaccinations, 82%
167 felt that agreeing to delay vaccines could build trust, and 80% responded that families might
168 leave their practices in cases of disagreement (Kempe et al., 2015).

169

170 *1.3 Patients and doctors: the good and the bad*

171 We draw upon the surprisingly underdeveloped sociological literature concerning
172 doctors’ subjective constructions of ‘good’ and ‘bad’ patients and upon similar literature
173 concerning patient and HCP perspectives on what constitutes ‘good’ and ‘bad’ doctors.
174 Whereas such distinctions are admittedly reductive, they are conceptually useful in
175 delineating doctors’ expectations of patients in vaccination consultations and vice-versa.

176 Although the previous discussion highlights difficult situations doctors face
177 concerning VH, it does not provide detailed understanding into their experiences with VH
178 and unvaccinated patients. However, one notable study from the US evaluated pediatric
179 resident and medical student reactions to 3 imaginary scenarios in which parents of one-year-
180 olds questioned evidence-based recommendations: parents (1) requesting unnecessary
181 antibiotics for a viral infection, (2) considering tympanostomy tubes for recurring ear
182 infections, and (3) hesitating about vaccination (Philpott et al., 2017). Participants assigned to
183 the VH group were significantly more likely to consider “the parent as difficult, saw less
184 value in the conversation, and had lower respect for the parent’s views” (p. 1701), and 41%
185 of VH group participants indicated they would be pleased if VH parents did not return to their
186 clinic.

187 Doctors’ subjective perceptions of their patients are not trivial matters. Street et al.
188 (2007) examined doctors’ perceptions of patients and communication styles in a study
189 involving doctors and patients from 10 US outpatient settings. They explained that
190 “physicians were more patient-centered, less contentious, and showed more positive affect to
191 patients they judged to be better communicators, more satisfied with care, and more likely to
192 adhere to treatment” (p. 594). With conceptual support of research from Jaye et al. (2006)
193 Hafferty and Hafler (2011), and Higashi et al. (2013) into students’ internalization of the
194 ‘hidden curriculum’ of medical school, Sointu (2017) conducted qualitative interviews with
195 medical students undergoing clinical rotations in the US. She provides convincing evidence
196 showing how such internalizations shaped their sense of patient worth and the distinction
197 between ‘good’ and ‘bad’ patients. ‘Good’ patients are described as good communicators,
198 knowledgeable, compliant with doctor recommendations, active participants in decision-
199 making, interesting, and individuals with whom doctors can empathize and identify (Higashi
200 et al., 2013; Sointu, 2017). In contrast, ‘bad’ patients have been defined through their non-

201 compliance with doctor recommendations, questioning of HCP legitimacy and authority, lack
202 of knowledge, and being difficult or problematic (Jefferey, 1979; Wright & Morgan, 1990;
203 Higashi et al., 2013; Sointu, 2017).

204 From a public health perspective, patient adherence to official vaccination
205 recommendations is a major consideration in vaccination consultations because high levels of
206 compliance are required for immunization programs to be effective at population levels.
207 Doctors are therefore expected to achieve high levels of patient adherence to vaccination
208 recommendations. For example, Brownlie and Howson (2006) describe how HCPs perceive
209 their professional responsibilities and engage in “governing health at a distance” (p. 433) by
210 taking public health targets into account during vaccination consultations.

211 Patient nonadherence has traditionally been understood within the framework of the
212 knowledge deficit model (Lawrence et al., 2014; Kitta & Goldberg, 2017), wherein the
213 assumption is that nonadherence is due to patients’ irrational behavior and/or lack of
214 sufficient knowledge. However, medical sociologists and anthropologists have argued that
215 nonadherence can be reframed as irrational in the eyes of medical experts and as rational
216 from patients’ perspectives (Donovan & Blake, 1992; Bury, 1997). Research has also shown
217 that appropriate communication from physicians is correlated with higher treatment
218 adherence among patients and that physicians who communicate poorly have higher risk of
219 patient nonadherence to recommendations (Zolnierek & Dimatteo, 2009).

220 Social science literature on the subject of ‘good’ and ‘bad’ doctors revolves primarily
221 around the issue of communication. A study involving 60 laypeople in Australia found that
222 patients constructed ‘good’ doctors by emphasizing doctors’ communicative abilities,
223 interpersonal skills, ability to listen, willingness to spend time with patients, compassion,
224 empathy, and how much patients could trust them (Lupton, 1996). Interestingly, most
225 participants considered doctors’ interpersonal skills to be more important than their medical

226 knowledge and expertise. Participants described ‘bad’ doctors as viewing patients like they
227 were on a “production line” (ibid, p. 160), not having enough time, hurried, and not listening
228 to patient concerns or questions. In a follow-up study with 20 doctors in Australia, Lupton
229 (1997b) describes how doctors, like the patients described above, also underscored the
230 importance of communication. Doctor participants described how ‘good’ doctors “should be
231 able to draw patients out, to listen to their concerns and to translate medical jargon into terms
232 that patients can easily understand” (p. 488). Participants further argued that doctors should
233 be empathetic and able to understand patient perspectives. In contrast, they described ‘bad’
234 doctors as dishonest, bad listeners, patronizing, or having purely financial interests. Such
235 understandings underscore the importance of affect (i.e. how people feel) in clinical
236 encounters, especially when individuals may favor the emotional elements of their
237 experiences with HCPs over the medical expertise and knowledge HCPs might offer (Lupton,
238 1997a; Navin, 2015). It is important to note that doctors also recognized the roles of their
239 own feelings and affect in clinical encounters in the above-discussed literature.

240 Lutfey (2005) combines the concepts of adherence and ‘good doctoring’ in an
241 ethnographic analysis of two diabetes clinics in the US. From HCP perspectives, she argues
242 that by pursuing patient adherence to medical recommendations, HCPs take on multiple
243 roles: educators, detectives, negotiators, salesmen, cheerleaders, and policemen. She further
244 argues that the goal of persuading patients only “superficially appears to dismantle the
245 paternalism of traditional physician roles” (p. 423). In other words, when patient adherence is
246 HCPs’ desired primary outcome, they struggle to effectively engage in true shared decision-
247 making.

248 *1.4 The Swiss Context: Biomedicine and CAM*

249 Participants’ professional reputations and identities are embedded within the broader
250 Swiss context, where complementary and alternative medicine (CAM) use is prevalent

251 among 25-50% of the population (Wolf et al., 2006; Klein et al., 2015). CAM use has been
252 associated with VH and underimmunization in other high-income countries, and this
253 association is complex, multifaceted, and merits further study (Wardle et al., 2016). In 2009,
254 the Swiss populace voted through a constitutional referendum to integrate CAM into its
255 healthcare system by, among other aspects, including its reimbursement through basic
256 mandatory health insurance (Saller, 2009; Debons, 2015). Given the popularity of CAM in
257 Switzerland, medico-professional perspectives on vaccination are inscribed into contexts in
258 which the authority of CAM and biomedicine is oftentimes expressed relationally. This
259 article complements our previous qualitative research into CAM and VH in Switzerland
260 (Deml et al., 2019b) by here focusing on how medical doctors who do not practice CAM
261 address VH in clinical practice.

262

263 *1.5 Research Questions*

264 With the goal of better understanding doctors' perceptions of VH and
265 underimmunized patients, we ask the following questions: (1) how do doctors in Switzerland
266 evaluate VH with their patients?; (2) how do doctors describe their perceptions of patients
267 based on their vaccination attitudes and behaviors?; and (3) when seeing VH patients, how do
268 doctors construct and manage their own roles, responsibilities, and reputations?

269

270 **2. Methods**

271 We conducted semi-structured qualitative interviews with biomedical doctors (N=20) and
272 ethnographic observations of vaccination consultations between doctors and parents (N=16
273 consultations with 6 doctors from the sample of the interviewed doctors) between August
274 2017 and October 2018 in the French- and German-speaking regions of Switzerland (FR-CH
275 and DE-CH, respectively). We first interviewed doctors and then observed some of their

276 consultations in order to triangulate data from doctors' discourses through comparison to data
277 collected from observations of what happened during consultations. We specifically focus on
278 doctors because vaccination consultations are usually conducted by physicians,
279 predominantly pediatricians, and general internists in Switzerland.

280 We recruited doctors through our research networks by calling potential participants,
281 sending recruitment letters and study flyers via email, and via snowball sampling. We
282 purposively sampled vaccination consultations for observations in order to observe
283 interactions with parents with whom doctors were likely to discuss vaccination for the first
284 time or with parents considering their children's first vaccines.

285 MD, a sociologist trained in qualitative methods, conducted 10 interviews and observed 7
286 consultations in FR-CH. JN, a biomedical doctor with training in qualitative research,
287 conducted 10 interviews and observed 5 consultations in DE-CH. PK, a senior medical
288 student with training in qualitative methods observed 4 consultations in DE-CH.

289 Our transdisciplinary research team of medical sociologists, anthropologists, public health
290 specialists, a pediatrician, and a general internal medicine and infectious disease specialist,
291 along with the support of an advisory board of clinicians trained in biomedicine and CAM, a
292 researcher in anthroposophic medicine, public health experts, and policy makers,
293 collaboratively drafted a qualitative interview guide. The guide was based on VH literature
294 and piloted for coherence and clarity prior to data collection. Questions were based on the
295 following themes: (1) doctors' background and training, (2) patient-provider interactions, and
296 (3) perspectives on vaccination, immunity, and public health. Participants responded to open-
297 ended questions in their own words. Interviews ranged from 34 to 82 minutes (average 63
298 minutes), were digitally audio-recorded, and transcribed verbatim.

299 Vaccination consultations were observed and documented in field journals. Following the
300 consultations, we wrote field notes into a narrative format. We systematically filled out

301 observation guides which were created with the research team, based on VH literature, and
302 designed to capture items of interest; we documented the reason(s) for consultations, the
303 person who initiated vaccination discussions, the vaccinations discussed, the amount of time
304 spent discussing vaccines, and our interpretations of doctor and parent emotions and
305 communication styles.

306 MD and AB the interview transcripts and consultation observations in the original
307 language of utterance, and analyses were complemented by regular discussions with the main
308 research team. We made a point to reflexively discuss our own perspectives during analysis
309 in order to minimize the bias potentially introduced by our own beliefs, experiences, and
310 assumptions. Research discussions were guided by the Framework Method (Gale et al., 2013)
311 which provided structure to our analysis based in constructivist grounded theory (Charmaz,
312 2006). In other words, through several in-depth readings of the data, we iteratively revisited
313 our analytical framework by inductively coding segments of text into themes which emerged
314 from the data. Throughout data analysis, we used sensitizing concepts (Bowen, 2006) so as to
315 retain our focus on patient-doctor interactions, doctors' perceptions of patients based upon
316 their vaccination perspectives, and influences on doctors' vaccination perceptions. Data were
317 coded and our analytical framework was revised with the support of MAXQDA software
318 (VERBI, 2018).

319 The local ethics committee (*Ethikkommission Nordwest- und Zentralschweiz*) approved
320 the conduct of the study. We obtained informed consent from participating doctors for
321 interviews and both parents and doctors for observations. Quotes from interviews or
322 observations have been translated into English. Pseudonyms are used for all participants.

323

324 **3. Results**

325 After thematically analyzing the data collected from interviews and observations, we
326 organized our findings in line with the study research questions. Participant characteristics
327 can be found in Table 1. We first describe how doctors' discourses depicted different types of
328 patients based upon patient vaccination attitudes and behaviors. We then discuss the various
329 dilemmas participating doctors face when seeing VH and underimmunized patients. We
330 finish the results section by showing how such dilemmas raised questions related to doctors'
331 professional reputations and legitimacy, not only among patients, but also with other HCPs.

332

333 *3.1 Testing the waters and diagnosing levels of hesitancy: Different types of patients*

334 An essential first step when discussing vaccinations with patients involved doctors *testing*
335 *the waters* to gauge to what extent patients express VH. Evidence from interviews and
336 observations show how, in such encounters, doctors assessed and diagnosed VH similarly to
337 how clinicians diagnose medical conditions. However, instead of focusing on physical
338 conditions, they diagnosed levels of VH. Through this process, doctors constructed different
339 types of patients and tailored communication accordingly.

340 Doctors described the initiation of vaccination discussions with new patients as short,
341 sometimes apprehensive, consultation moments. Dr. Ferri described such instances, "There is
342 always a brief moment where I say to myself, 'How is this going to go?'"

343 Doctors' descriptions of initial encounters detailed how they were quickly able to discern
344 levels of VH through communication, affect, and feeling. They explained how they could
345 "see quickly," "feel right away how patients react," and "sense that people are a little
346 hesitant." Dr. Délèze explained how patients convey VH, "They start off by telling me that
347 they're not really into medicine. As long as they can do something homeopathically, they
348 will. Or that they have not been vaccinated themselves." Dr. Topf described his experiences,
349 "You realize [their perspectives] very quickly in the consultation. Even before I start talking

350 about vaccines, you sense people a little bit. Then, I already have the impression, ‘Yes, this is
351 going to be difficult.’”

352 Doctors’ discourses constructed different types of patients which do not fit neatly into
353 previously discussed ‘good’ and ‘bad’ patient archetypes. Doctors’ descriptions retained the
354 common “for or against” narrative in vaccination discourses, but only to a certain extent.
355 Doctors used the terms “pro” and “anti” vaccine in their discussions, but their explanations
356 provided nuanced descriptions of patients’ vaccination attitudes. Dr. Pieren’s comments
357 reflect this, “I would say about 80% have no questions. (...). Around 5% say, ‘We decided
358 against vaccination.’ (...) About 10-15% have further questions about one vaccine but are not
359 against it.” Overall, doctors’ discourses placed patients into three main categories: (1)
360 compliers, (2) hesitant, undecided, or skeptical patients, and (3) refusers or non-vaccinators.

361 *Compliers.* Compliers follow providers’ recommendations and trust doctors and their
362 advice. Most patients fell into this category. Dr. Dardel explained how patients actively
363 sought out vaccinations, “A lot of people come especially for the vaccines. They are surprised
364 if there is a consultation without vaccines. (...) Especially immigrants. For them, it’s normal
365 to vaccinate.” Since our discussions with doctors focused on vaccine hesitant and
366 underimmunizing parents, the doctors did not describe compliers in great detail. Compliers
367 adhered to normative vaccination practices, and doctors did not often elaborate upon these
368 parents’ motives for vaccination.

369 *Hesitant, undecided, or skeptical patients.* These patients were the most heterogeneous
370 group. In terms of their backgrounds, doctors found it difficult to ascribe them specific
371 characteristics as a rule but generally noted these individuals as having attained higher
372 education, from the upper-middle class, and health conscious. Doctors described a subgroup
373 of patients who vaccinate despite concerns, a subgroup Enkel et al. (2018) refer to as
374 ‘hesitant compliers’ in their analysis. Participants explained how some hesitant patients had

375 specific questions that could be answered quickly or by providing fact sheets. Others required
376 more of the doctors' time and wished to engage in detailed discussions. These types of
377 patients had concerns about necessity, safety, novelty, and age appropriateness of certain
378 vaccines.

379 *Refusers and non-vaccinators.* Doctors rarely had vaccine refusers and non-vaccinators in
380 their offices. Many nonetheless described them as a source of tension and frustration, using a
381 range of rather negatively connoted vocabulary to describe them. Participants described
382 refusers as “alternative,” “selfish,” being from “hardcore, mega anti-vaccination regimes,”
383 “stubborn,” “determined,” “dogmatic,” “informed,” and as people whose “minds were made
384 up.” Dr. Rossi expressed concern that anti-vaccine individuals were collectively “gaining
385 ground” and “a little bit like the Taliban” in their extremism. Several doctors reported how
386 engaging in dialogue with refusers often proved to not be worth their time or energy because
387 they perceived these patients' stances to be immutable.

388

389 *3.2 Dilemmas in addressing vaccine hesitancy*

390 Although participants reported a minority of their patients falling into the latter two
391 categories, virtually all doctors described how consultations with hesitant patients occupied
392 more of their time. These patients proved to be more challenging, required more emotional
393 capacity, and confronted doctors with more dilemmas than their interactions with compliers.

394 That said, some doctors lauded patients for having skeptical stances. For instance, Dr.
395 Ammann explained, “[Adolescents] are allowed to think about [the HPV vaccine]. I give
396 them a brochure (...). I let them ask critical questions.” Dr. Caspari expressed a similar idea,
397 “These are people who ask questions. It's not a complete refusal of vaccines. Generally,
398 skepticism is a sign of intelligence. (...) It all depends to what degree there is skepticism, I
399 suppose.”

400 Dr. Oblinger realized she had overestimated how many hesitant patients she had in her
401 office, explaining, “It was funny. I always said, 50% [of parents] are vaccine hesitant. Then I
402 realized when I did a survey that my subjective perception was completely wrong. About 5%
403 of my patients are vaccine hesitant.” Such a realization echoes Dr. Caspari’s assertion that
404 these patients may be perceived as “problem patients,” and shows how doctors may
405 overestimate their prevalence. Not all participants would likely agree that such patients are
406 problems. However, it was clear from the interviews and observations that their interactions
407 with VH patients put them into memorable situations bringing them to reflect about their
408 responsibilities *vis-à-vis* vaccination. Below, we describe some of these dilemmas, which lays
409 the groundwork for discussion around what they reflect not only about patients themselves,
410 but also about how relationships with VH patients has repercussions for the construction of
411 doctors’ professional responsibilities, identities, and reputations among patients and HCPs.

412

413 *3.2.1 Accepting non-vaccinating patients*

414 Reflecting one of the preoccupations of public health literature, participants discussed
415 refusing to treat non-vaccinating patients. Whereas no interviewees reported actively refusing
416 underimmunized patients, several were aware of colleagues, particularly pediatricians, who
417 categorically refused them. Dr. Delèze, who had opened her practice several years before the
418 interview, described how she had begun establishing a patient base by accepting hesitant and
419 non-vaccinating patients. She began facing difficulties in continuing their care, “It’s starting
420 to weigh on me to have a lot of non-vaccinated patients. The day that I have a child who
421 catches measles in my waiting room, I’ll have trouble sleeping.” Such reflections brought her
422 to clarify the dilemma in which she found herself:

423 “I’m not really sure where to position myself. Should I just refuse [unvaccinated
424 patients] as a principle? But that means that I would show the door to quite a few

425 families. (...) Vaccination specialists don't recommend that we do that because they
426 say that this creates whole casts of unvaccinated children. (...) I just think about how
427 I completely disagree [with some parents] on this principle and how I won't be able
428 to give them proper care."

429 Concerned with the potential of measles outbreaks occurring in her private practice, Dr.
430 Délèze explains her conflicted position by weighing her own personal feelings on the
431 matter against biomedical recommendations from "vaccination specialists."

432 Several doctors were conflicted due to previous clinical encounters with vaccine
433 preventable diseases resulting in severe health consequences or death. They struggled coming
434 to terms emotionally with these experiences and hoped to prevent similar situations. Dr.
435 Gilliard remembered a baby contracting measles from exposure to an unvaccinated
436 individual, "I saw a 3-week-old baby die from measles and find it unacceptable that this can
437 happen nowadays (...) even though there is an excellent vaccine. This shouldn't happen." In
438 other testimonies, doctors similarly questioned why these preventable diseases and deaths
439 could occur when they could be prevented with vaccinations. Many felt a responsibility to
440 continue providing care to non-vaccinating individuals in the hope that they might change
441 their minds.

442

443 *3.2.2 Individualization and delays*

444 Doctors expressed somewhat negative attitudes and ambivalence about modifying the
445 recommended vaccination schedule. Dr. Fischer described how recommendations were
446 already "complicated enough," elaborating, "In order to avoid errors, we need
447 standardization." When asked about *à la carte* schedules, Dr. Morand called them a "tedious"
448 nuisance, explaining, "It's hours spent on discussion. We try to stay calm and say, 'Listen,

449 let's talk about each disease, one-by-one. So, why do you want to protect [your child] against
450 tetanus but not meningitis?'

451 Other doctors echoed Dr. Morand's efforts to remain calm, citing the importance of
452 informing patients about each vaccine, even in cases of disagreement. Dr. Gilliard explained,
453 "I think these people understand that I disagree. (...) But what is the most important for me is
454 that these babies and children receive medical care." Dr. Rossi expressed being personally
455 against delaying vaccinations but explained sometimes needing to find a compromise, "For
456 anti-vaccine parents, if they are only partially convinced and they accept to vaccinate a little
457 later (...), I think that it's the lesser of two evils than those who refuse everything."

458 Others did not take issue with patients requesting individualized vaccination,
459 particularly for premature or ill infants. For instance, Dr. Rüesch explained how some
460 mothers, most from Switzerland and some from eastern Europe, prefer delaying vaccinations,
461 "If the child doesn't attend daycare and if there are no other specific reasons, I don't force
462 anyone to vaccinate. (...) [Some parents] don't want to vaccinate against everything. They
463 want to wait a bit. They simply want a differentiated vaccination schedule. We can do that. I
464 don't really care." In these cases, doctors reported a tendency to prioritize certain vaccines,
465 such as MMR (mumps, measles, rubella), tetanus, and pertussis. Doctors expressing
466 willingness to diverge from Swiss recommendations explained how they insisted less on
467 certain vaccines, such as those classified as complementary vaccines by the FOPH. Some
468 pediatricians reported being conflicted when offering HPV vaccinations to younger patients,
469 such as those 11-13 years old, citing the challenges in broaching sexuality with adolescents.
470 In these instances, doctors felt that these discussions were the responsibility of schools or
471 parents and preferred that the decisions were made outside of their offices.

472

473 *3.2.3 Maintaining dialogue and trust*

474 When counseling VH patients, doctors commonly discussed the necessity of engaging in
475 meaningful and careful dialogue. When describing initial discussions, Dr. Délèze explained
476 how she evaluated potential for communication, “If the parents are against [vaccination], I try
477 to measure to what extent they are against it to see if it’s a subject that we can or cannot talk
478 about.” Dr. Rossi also discussed the prerequisite of an exchange, “I can take more time as
479 long as I feel there is a discussion. From the moment when I feel that we have finished the
480 discussion, there are no more arguments or exchanges of different viewpoints, or we are
481 overemotional or dogmatic, I stop there.” Furthermore, Dr. Oblinger described how her
482 approaches had changed over the years:

483 “In the past, I would bring up arguments and become emotional myself. Now,
484 I realize that if I speak more neutrally, [parents] come back. But you can’t
485 always give the same answer. You have to get a feel for where the parents are.
486 (...) You can’t put on a pre-recorded tape.”

487 In all of these instances, doctors recognized the importance of individualizing the
488 vaccination discussions in order to tailor them according to patients’ willingness, or
489 lack thereof, to have productive conversations about vaccination.

490 A common compromise doctors made during difficult consultations involved them
491 insisting less or avoiding discussions with parents they perceived as determined to not
492 vaccinate. Dr. Dardel expressed concern that too much insistence might result in trust being
493 “broken” with parents. Dr. Rossellat explained how these consultations were “difficult” and
494 described these instances as being filled with “tension.” She elaborated, “I’ve never had a
495 person like that change their mind. Actually, it’s difficult to know what I should do because I
496 just create more tension. For me, it’s extremely important to inform them.” Dr. Rüesch
497 justified ending such vaccination consultations due to time constraints, “I don’t argue
498 anymore with those who ideologically think that vaccinating causes harm because my time is

499 too precious, honestly.” When counseling those who were decided not to vaccinate, it was
500 common for doctors to describe disengaging from discussion in order to mitigate the
501 perceived potential for conflict and to save time.

502

503 *3.2.4 Patients planting seeds of doubt into doctors’ knowledge*

504 When we asked how to improve vaccination communication, many doctors reported a
505 desire to feel more supported in “knowing the facts” in order to be more informative in
506 consultations. Doctors argued that higher confidence in their own knowledge could improve
507 communication with VH patients. Dr. Meier discussed a desire to be comforted by the
508 scientific literature and explained, “Patients put doubt into what you know. (...) Scientists
509 and researchers don’t do enough to try and to put at ease some of the worries.”

510 Several doctors also wanted to further understand patients’ information sources and
511 anti-vaccination arguments. Dr. Rossellat recounted the difficulties of having patients who
512 come to appointments “armed” with anti-vaccination arguments, “The worst is when they
513 have seen a television report or something that is super up-to-date. Then they come with these
514 arguments, and I haven’t seen what they have.” Dr. Gersbach noted how patients “all go and
515 ask ‘Dr. Google.’” Such statements reaffirm the idea of VH individuals as active agents, both
516 in medical encounters and in health information seeking behaviors.

517

518 *3.3 Professional reputations, vaccine hesitancy, and underimmunization*

519 Doctors positioned their vaccination views and practices by referring to official
520 recommendations and medical literature, responsibility toward their patients and society.
521 They also referred to their reputations among patients and colleagues. Many framed their
522 practices by distancing themselves from VH and anti-vaccine HCPs. The evidence we
523 gathered overall constructed normative discourse surrounding acceptable ways to address VH

524 as HCPs by actively pursuing vaccine uptake, despite the dilemmas described above for
525 which there were no straightforward solutions.

526 An underlying theme to the construction of doctors' reputations around vaccination
527 involved the figure of 'good' and 'bad' doctors and HCPs. Similar to the 'good'/'bad' patient
528 distinction, our goal is not to ascribe doctors into such categories but rather to call attention to
529 how doctors perceived themselves and their colleagues in similar terms. Additionally, our
530 evidence shows how doctors were aware of vaccination-related reputations, both about
531 themselves and about other colleagues, and how they could easily spread among patients and
532 colleagues.

533

534 *3.3.1 Managing reputations with patients and positioning professional practices*

535 Doctors explained how they felt they were perceived by VH and non-vaccinating
536 patients when promoting vaccinations. Several described such patients' perceptions of them
537 as "corrupt" and "in the pockets of pharmaceutical companies." Dr. Rossellat recounted,
538 "[Patients] always have the impression that you are on the side of public health and
539 pharmaceutical lobbies. You're kind of perceived as the bad guy." Such statements echo
540 Lupton (1996, 1997b)'s findings showing how doctors and patients alike perceived 'bad'
541 doctors as being corrupt and having purely financial interests.

542 Several doctors reported clearly stating their vaccination positions in order to avoid
543 ambiguity with patients. During a consultation with a mother and father of a 5-week-old, we
544 observed Dr. Mattli respond to the mother's request for vaccination counseling. After
545 describing the FOPH recommendations, Dr. Mattli explained her position by distancing
546 herself from hardline vaccination advocates and opponents. We here recount this episode
547 from observation notes:

548 Dr. Mattli mentioned there were anti-vaccine people, explaining that in her view, both
549 sides used fear to influence others. She clarified that she was “no vaccination Taliban”
550 and that she did not use fear with patients. She told the parents, “No matter what you
551 decide, I’m going to care for you.” She concluded by repeating her recommendation
552 to follow the official vaccination schedule.

553

554 Some doctors explained a need to distance themselves from their perceptions of CAM
555 providers’ vaccination practices and beliefs. Dr. Délèze, for example, discussed a reputation
556 she had begun having among patients due to her acceptance of unvaccinated patients, “People
557 come for that reason and say, ‘Yes, you’re open [to non-vaccination].’ I correct them quite
558 often. I say that I am not a homeopath, that I am pro-vaccine, and that I do not want any
559 confusion about my title. Unfortunately, it’s a reputation that can spread more quickly than
560 others.” We observed such professional distancing during a consultation with Dr. Délèze and
561 a mother:

562 Dr. Délèze asked if they were going to continue the vaccination schedule they had
563 previously agreed upon. The mother hesitated before saying that she had been
564 wondering about aluminum in vaccinations. She appeared embarrassed in divulging
565 that she had seen a homeopathic doctor who had brought up the topic. Dr. Délèze,
566 frowning, seemed annoyed about having to address this issue. She slowly explained
567 that the homeopath was correct about aluminum being in some vaccines in small
568 amounts in order to prompt an immune reaction. Dr. Délèze then asked the mother if
569 the other doctor had changed the mother’s mind. The mother slowly mumbled that he
570 had not, she was “100% for vaccines,” and explained how the homeopathic doctor
571 had introduced doubt into her mind. Dr. Délèze shook her head disapprovingly and
572 said, “They’re good at doing that.”

573 In Switzerland, where CAM use is popular, Dr. Délèze found it important to assert
574 biomedicine’s legitimacy in opposition to CAM, which she associated with doubt about
575 vaccines and anti-vaccine attitudes. Other participants also commonly associated VH and
576 vaccine refusal with CAM. Dr. Dardel recounted why he saw relatively few VH patients,
577 “People who absolutely don’t want to vaccinate maybe go see a different type of doctor. (...)”
578 A large majority of my patients are convinced of the importance of vaccinations. (...) The
579 others see homeopaths or people who practice natural medicine.”

580 Overall, doctors reflected about how they positioned themselves in terms of their level
581 of support for vaccinations with their patients and what this meant for how patients perceived
582 them. Sometimes, this meant presenting themselves to patients as providing emotionally
583 “neutral” approaches, as Dr. Mattli explained to the parents in her consultation. For others,
584 this meant differentiating their practices and recommendations from the recurring figure of
585 the anti-vaccine CAM provider.

586

587 *3.3.2 The intraprofessional gaze*

588 During interviews, doctors compared their vaccination practices and perspectives to
589 those of their colleagues and to official recommendations. As evidenced by the introductory
590 quote from Dr. Caspari, accepting anti-vaccine patients was at one point in his career viewed
591 as a “failure of the pediatrician.” He explained how when he was a pediatric intern, doctors
592 who vaccinated less were “pointed at by other doctors,” and called “blue flowers,” with the
593 suspicion that they “practiced homeopathy.” Having felt this normative expectation from his
594 colleagues about vaccination, Dr. Caspari wondered if his acceptance of VH patients brought
595 judgement from colleagues. He nonetheless expressed relief in knowing that he had expert
596 support, “Luckily, I had the support of vaccinologists to help me to know that I’m right [to
597 accept these patients].”

598 Participants reported being aware of normative expectations from colleagues, Swiss
599 recommendations, and medical literature to promote pro-vaccination discourse and increase
600 vaccination uptake. They also reproduced similar discourse during interviews by discussing
601 other HCPs' vaccination practices. Some commented on HCPs' vaccine doubts and
602 questioned where they came from. Dr. Ferri expressed her astonishment about VH doctors,
603 "Part of the problem is that there are people from the medical field who claim to be medical
604 but are skeptical towards vaccination. That can be quite destabilizing for people." She then
605 wondered, "How can a doctor with the same training as me be so opposed to vaccination?"

606 Several doctors criticized other HCPs' decisions to dismiss families who refused
607 vaccination by pointing out the ethical considerations, epidemiological consequences, and
608 doctors' responsibilities in providing care to everyone. Dr. Oblinger described a difference of
609 opinion that she had had with a colleague in her shared practice. Her colleague wished to
610 dismiss parents who did minimal vaccinations. Dr. Oblinger explained to her, "My mission as
611 a doctor is to accompany everyone, especially those who have doubts." She elaborated, "It's
612 bad that a pediatrician (...) might select [patients] or refuse them. (...) In doctors' offices in
613 the Netherlands, everyone goes, and the doctors have to take them. (...) Here, you can say, "I
614 just take German-speaking Swiss residents who are willing to vaccinate."

615 Doctors commonly perceived CAM practitioners as perpetuating anti-vaccine
616 discourse. Dr. Rossi explained, "Often, there has already been a discussion with an
617 alternative doctor, who played the role of pediatrician or general practitioner and who has
618 already convinced the parents." Other doctors expressed concern about other HCPs' training
619 and information sources. Some discussed how midwives or nurses might be spreading
620 information that encourage people to vaccinate less and suggested regular refresher courses
621 as a possible remedy. Dr. Balen explained how there should be stricter surveillance for HCPs
622 regarding the information they provide to patients, "We currently can't forbid [HCPs] from

623 making divergent recommendations. I think we should actually be obligated to inform parents
624 according to the latest scientific standards.” In other words, participants hypothesized that
625 certain HCPs were at fault in promoting negative vaccine attitudes. Others, through
626 discussion of other HCPs’ questionable practices, such as dismissing patients for their
627 vaccination perspectives or decisions, implied that there were unacceptable ways to address
628 parents’ VH.

629

630 **4. Discussion**

631 Evidence from our observations and interviews shows how doctors screen, diagnose,
632 and measure patients’ levels of VH. Doctors’ classifications of patients based upon their
633 vaccine perspectives set the stage for different styles of communication with different types
634 of patients. Although the categories they constructed are similar to other typologies in VH
635 literature (Leask et al., 2012; Rossen et al., 2019), doctors’ subjective descriptions of
636 different types of patients have not yet received much research attention. Furthermore,
637 analysis of participants’ perceptions of how other HCPs address VH provides important
638 insight into medico-professional expectations about addressing VH in practice.

639 Framing patients and doctors into ‘good’/‘bad’ binaries is admittedly limiting but
640 nonetheless conceptually useful. This heuristic exercise brings to the fore the shifting roles of
641 patients and doctors in contemporary societies, where the abundance of health information
642 circulates via mass media and online more quickly than ever before (Dedding et al., 2011).
643 VH therefore serves as an emblematic case study of challenges doctors encounter in
644 interactions with well-informed or uncertain patients, with such challenges underscoring the
645 often-overlooked paradoxes of addressing VH in clinical practice.

646 One paradox results from recent sociomedical trends shaping ‘good’ patients and
647 healthcare consumers as inquisitive, autonomous, informed individuals who are active

648 participants in health decision-making (Armstrong, 2014). Research shows that these
649 characteristics generally ring true for VH individuals (Reich, 2018). However, by questioning
650 biomedical knowledge in an attempt at being ‘good’ patients and potentially not adhering to
651 vaccination recommendations, VH parents cross the lines into ‘bad’ patient territory. This
652 paradox is particularly useful for researchers and clinicians because it aids in understanding
653 VH individuals’ rationales from a patient perspective instead of labelling patients with
654 vaccination questions as categorically anti-vaccine. This paradox also calls attention to how,
655 as other research has shown, parents who actively seek out information are doing so in the
656 best interests of their children (Wang et al., 2015). Researchers and clinicians will benefit
657 from understanding that criticizing information-seeking parents and VH individuals serves as
658 a punishment for such behaviors, which have been encouraged by health promotion efforts
659 over the last several decades.

660 Another paradox results from the consideration of what constitutes ‘good’ and ‘bad’
661 doctors. As discussed above, ‘good’ doctors are meant to be good communicators,
662 empathetic, and involve patients in the decision-making process. They are also expected to
663 elicit patient adherence to public health vaccine recommendations. When patients do not
664 adhere, doctors risk becoming ‘bad’ doctors in the eyes of the medical establishment. Faced
665 with potential loss of face, doctors are, in the ‘good/bad’ binary model, expected to maintain
666 communication, show empathy, and involve patients in decisions which transgress official
667 vaccination recommendations. This paradox demonstrates how doctors are situated in a
668 network of conflicting expectations in which they are called upon to situate themselves and
669 their professional practices. Moreover, this paradox is particularly salient because it calls
670 attention to the tensions involved when translating ‘one-size-fits-all’ approaches to
671 individually meaningful approaches in clinical practice. In effect, as the evidence we gathered

672 shows, participants reported the necessity of adopting pluralistic approaches in order to tailor
673 communication according to patients' vaccination attitudes and practices.

674 A common construction in participants' discourses around VH patients was the figure
675 of the 'problem' patient. Such patients required more of the doctors' time, communication
676 skills, and medical expertise due to their additional questions, diverging viewpoints from
677 biomedicine, and questioning of the legitimacy of health systems and doctors' expertise.
678 However, not all participants' accounts fully support the caricatured image of these patients
679 as "problems." Despite the challenges they posed, some doctors described such skepticism as
680 a healthy, and even scientific, stance for patients to take. As long as dialogue was possible,
681 most participants were open to patients' vaccination questions and understanding of their
682 reluctance to vaccinate. This finding brings a more nuanced picture of patient adherence and
683 'good'/'bad' patients to the sociological literature and underscores the problematic nature of
684 persisting 'anti/pro' dichotomies in vaccination discourses (Brunson & Sobo, 2017).

685 One of our most striking findings demonstrates how doctors' self-perceived
686 professional responsibilities and reputations were linked to how they addressed VH. Doctors
687 were aware of having certain reputations among patients *vis-à-vis* their openness to VH or
688 non-vaccination. These reputations circulated among hesitant patients who actively sought
689 doctors empathetic toward VH patients. Participants also discussed how the spread of these
690 reputations could reinforce their own positions, which manifested through doctors
691 encouraging patients to adhere to vaccination recommendations. Additionally, their
692 discussions of these reputations constructed HCPs who deviate from official vaccination
693 recommendations, or who support patients' VH, as practitioners who fail to meet their
694 professional responsibilities.

695 Some doctors problematized their reputations among colleagues and patients by
696 insisting that they did not want to be known as non-vaccinating doctors or to be associated

697 with CAM. Findings from Deml et al. (2019b), however, suggest that CAM providers in
698 Switzerland are not categorically opposed to vaccination. Participants' perceptions
699 associating CAM and non-vaccination likely reflect diverging epistemologies between
700 biomedicine and CAM. That said, this interprofessional distancing may have been
701 exaggerated by study participants due to our focus on vaccination. For example, a
702 representative study, unrelated to vaccination, of pediatricians in Switzerland reported that
703 23% of respondents had attended complementary medicine (CM) training, 65% were
704 interested in pursuing CM training, 16% provided CM to their patients, and more than 50%
705 used CM for themselves or their families (Huber et al., 2019).

706

707 **5. Conclusions**

708 Professional reputations being intertwined with how doctors address VH and
709 underimmunization clearly has implications for patient-HCP interactions. Future research
710 could benefit from heightened attention to the roles and expectations that HCPs have
711 internalized regarding vaccination. Our findings bolster Karafillakis and Larson (2018)'s
712 assertion that researchers should focus on issues facing HCPs: "The burden of addressing
713 public and parent hesitancy cannot be placed on health professionals, without first taking the
714 time to understand and address their own concerns and to build their confidence" (p. 800).
715 Likewise, future research will benefit from paying attention to the affect and feelings that
716 HCPs associate with such clinical encounters. As we have shown, doctors are not immune to
717 emotions in their experiences with vaccination consultations. Additionally, doctors regularly
718 engage with parents who value the emotional aspects of clinical encounters and who have
719 expectations of being listened to and taken seriously.

720 Our findings raise an important question for vaccination consultations: is the more
721 important goal to achieve vaccination uptake or to better inform and communicate with VH

722 patients about the consequences and benefits of their choices? Insisting too heavily on
723 vaccination uptake, without actively engaging with patients' hesitancy, can lead to the
724 stigmatization of hesitant and non-vaccinated individuals. Approaches focusing primarily on
725 adherence likely undermine public health goals of increased vaccination uptake because pro-
726 vaccination communication can be perceived as condescending, belittling, or patronizing to
727 those who hesitate or actively choose not to vaccinate (Nyhan et al., 2014; Masaryk &
728 Hatoková, 2016). When patients feel belittled or patronized, other determinants of vaccine
729 acceptance suffer through the erosion of trust in HCPs, public health institutions, and
730 biomedicine. The philosophical and ethical analysis of the doctor-parent relationship
731 provided by Navin (2015) shows how the clinical encounter provides opportunities for
732 doctors to gain, maintain, or lose patient trust in biomedicine. He explains, "when a
733 pediatrician refuses to respectfully respond to a mother's worries about the necessity or safety
734 of vaccination, (...), he may also undermine the trust *she* is willing to place in *his testimony*
735 about vaccines (p. 30, emphasis in original).

736 VH and underimmunization are complex, multifaceted social phenomena, and HCPs
737 play substantial roles in shaping patient perceptions around vaccination and vaccine uptake. It
738 is therefore important to be attentive to the expectations created for HCPs by dominant public
739 discourses around vaccination and the growing body of scientific literature's
740 recommendations about addressing VH in clinical practice. Doctors' internalization of this
741 oft-polarized social issue and of the intraprofessional medical gaze, which promulgates
742 normative vaccination practices, may increase doctors' apprehension about engaging with
743 vaccine hesitancy and underimmunization due to anxieties of "failing" their patients, the
744 public, and their profession.

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