

Older adults' vaccine hesitancy: Psychosocial predictors of influenza, pneumococcal, & shingles vaccine uptake.

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INTRODUCTION

- Older adults are vulnerable to vaccine-preventable illnesses, but vaccination coverage could be improved.
- Vaccine hesitancy is the refusal or delayed acceptance of available vaccines (MacDonald & SAGE, 2015).
- Psychosocial factors (Schmid et al., 2017) require more investigation as potential predictors of older adults' hesitancy.

METHODS

- Cross-sectional online survey of UK, independently-living adults aged 65-92 years; N = 372.
- Collected data on: socio-demographic factors; self-reported overall health; psychosocial vaccination-related factors (the 5C & VAX scales); daily functioning (IADLs); cognitive functioning (MASQ), and social support (ISEL-12).
- Participants additionally provided up to three main reasons for their vaccination decisions.

RESULTS

- Uptake of the influenza vaccine was approximately 24% higher than for the other two vaccines.
- Considerably more participants were aware of their eligibility for, and had been offered, the influenza vs the other two vaccines.
- For those unvaccinated for pneumococcal and shingles diseases, 33-47% were not sure about whether to get vaccinated in future.
- Multivariate logistic regression analyses showed that a lower sense of collective responsibility independently predicted lack of uptake of all three vaccines.
- Greater calculation of disease and vaccination risk and preference for natural immunity also predicted lack of influenza vaccine uptake.
- For both the pneumococcal and shingles vaccines, concerns about profiteering predicted lack of uptake.
- Qualitative data generally supported these findings.

DISCUSSION

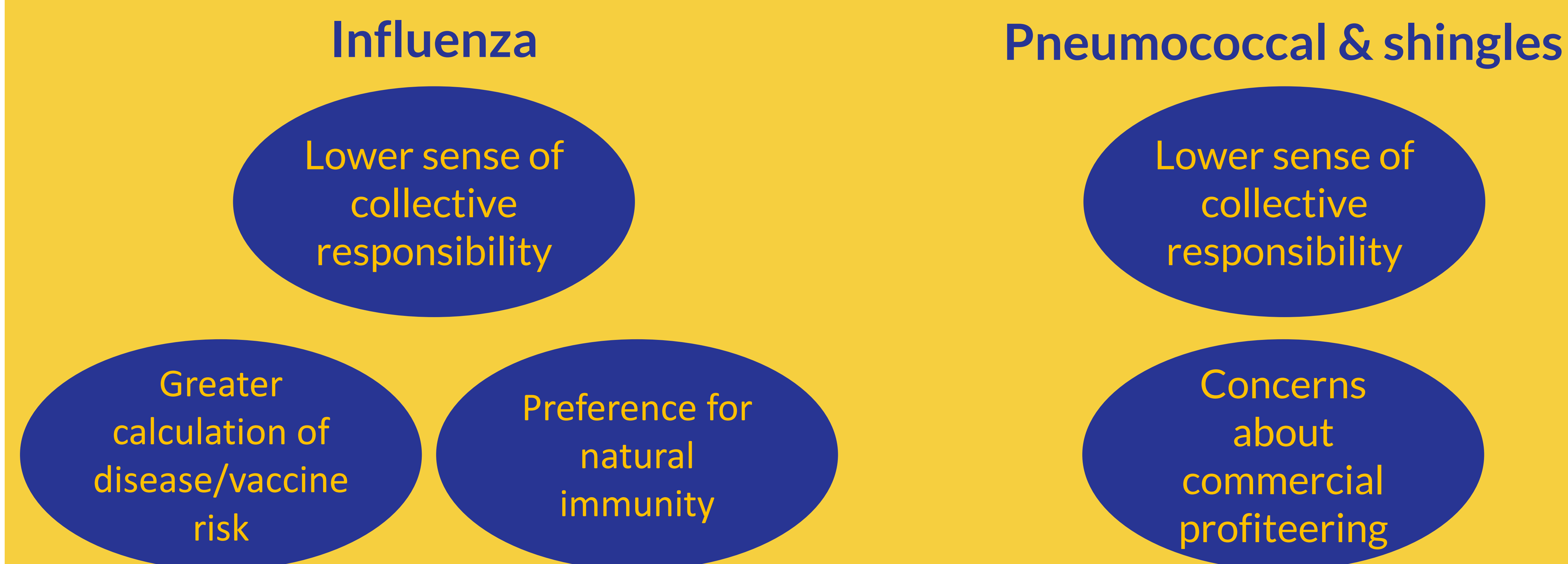
- Tailored interventions are required that emphasise disease risks and vaccine benefits, and which highlight the community benefits of vaccination (Betsch et al., 2015).
- Future research could usefully investigate more diverse groups of older adults (e.g. mild cognitive impairment, impaired daily functioning), as the predictors will likely vary amongst older adults.

FINANCIAL DISCLOSURE

- This work was supported by the Chief Scientist Office [grant number CGA/19/52].

Psychosocial predictors of older adults' vaccine uptake vary by vaccine. Interventions are needed that emphasise disease risks and the community benefits of vaccination.

Independent predictors of lack of uptake



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Table 1. Vaccination awareness and uptake related to each vaccine.

	Influenza	Pneumococcal	Shingles
Aware eligible	99.5% (370)	69.5% (258)	78.2% (147)
Offered vaccine	96.2% (354)	61.9% (229)	63.2% (120)
Previously received vaccine	83.6% (311)	60.2% (224)	58.9% (113)
Intend to get vaccine	82.1% (294)	27.1% (39)	34.6% (27)

Table 2. Final models, including independent predictors of not getting vaccinated (based on multivariate logistic regression analyses).

	Influenza		Pneumococcal		Shingles	
	OR (95% CI)	p-value	OR (95% CI)	p-value	OR (95% CI)	p-value
Age	-	-	.93 (.88-.98)	.010	-	-
5C						
Calculation	1.49 (1.10-2.02)	.010	-	-	-	-
Collective responsibility	.42 (.31-.58)	< .001	.70 (.56-.88)	.002	.68 (.49-.95)	.023
VAX						
Concerns	-	-	1.62 (1.19-2.21)	.002	1.96 (1.26-3.04)	.003
Natural immunity	3.33 (2.04-5.43)	< .001	-	-	-	-

NB: OR = odds ratio; CI = confidence interval.

Table 3. Qualitative data on reasons for vaccination behaviour: Categories of meaning with example quotes.

Categories of meaning	Number (%) of comments	Example Quote
1 Personal Health	183 (20.8%)	"to protect myself from disease"
2 Vaccine Effectiveness	181 (20.6%)	"future protection against possible illness"
3 Health of Others	135 (15.3%)	"community benefit"
4 Barriers	125 (14.2%)	"when I take the flu jab I always end up with the flu"
5 Knowledge	90 (10.2%)	"I trust the evidence"
6 Health Systems	69 (7.8%)	"I trust the NHS to provide excellent advice"
7 Accessibility	57 (6.5%)	"freely available"
8 Social and Familial Influence	18 (2.0%)	"my mother was a nurse."
9 Miscellaneous	22 (2.5%)	"go with the flow"

References

- Betsch, C., et al., (2015). Using behavioral insights to increase vaccination policy effectiveness. *Policy Insights from the Behavioral and Brain Sciences*, 2, 61-73.
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- Schmid, P., et al. (2017). Barriers of influenza vaccination intention and behavior – a systematic review of influenza vaccine hesitancy, 2005 – 2016. *PLoS ONE*, 12: e0170550.