Request for Copy of Published Material

The materials provided in response to your request, unless otherwise stated, are the property of the copyright holder. Copyright and other intellectual property laws protect these materials. Reproduction or retransmission of the materials, in whole or in part, in any manner, without the prior written consent of the copyright holder, is a violation of copyright law. A single copy of the materials is provided to you pursuant to a license to do so that has been granted by the copyright holder to us. You may not redistribute or reproduce the materials in any forms without prior written consent of the copyright holder of the materials.

Enclosure:

POSTER: Harrsen K, Yildirim M, Beckham C et al. Presented at Psych Congress, September 17-19, 2025, San Diego, CA

Kristine Harrsen, PhD¹; Murat Yildirim, MD, PhD¹; Clodagh Beckham, BPharm, DipClinPharm²; Soma Nag, PhD³; Xavier Guillaume, MSc⁴; Amal Sadou, MPH⁴; Arun Micheelsen, PhD¹

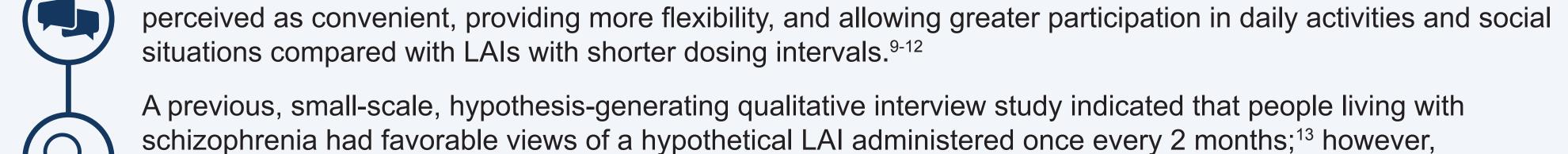
¹H. Lundbeck A/S, Valby, Denmark; ²Otsuka Pharmaceutical Europe Ltd., Windsor, UK; ³Otsuka Pharmaceutical Development & Commercialization Inc., Princeton, NJ, USA; ⁴Oracle Life Sciences, Paris, France

Background





Pharmacological treatment options for achieving and maintaining symptom control include antipsychotics, available as both oral and long-acting injectable (LAI) formulations.² LAIs are associated with improved adherence and treatment outcomes versus oral formulations.³⁻⁷ LAI antipsychotics with dosing intervals >1 month are available for treating schizophrenia.8



A previous, small-scale, hypothesis-generating qualitative interview study indicated that people living with schizophrenia had favorable views of a hypothetical LAI administered once every 2 months;¹³ however, there remained a need for further quantitative evidence on the preferences of people living with schizophrenia for LAIs with longer dosing intervals.

LAI use may be influenced by patient preferences for treatment, with dosing intervals >1 month more frequently



The primary objective of this study was to quantify the strength of preference for a once-every-2-months LAI versus an oral medication or once-monthly LAI, and to identify the factors that drive preference for a once-every-2-months LAI.



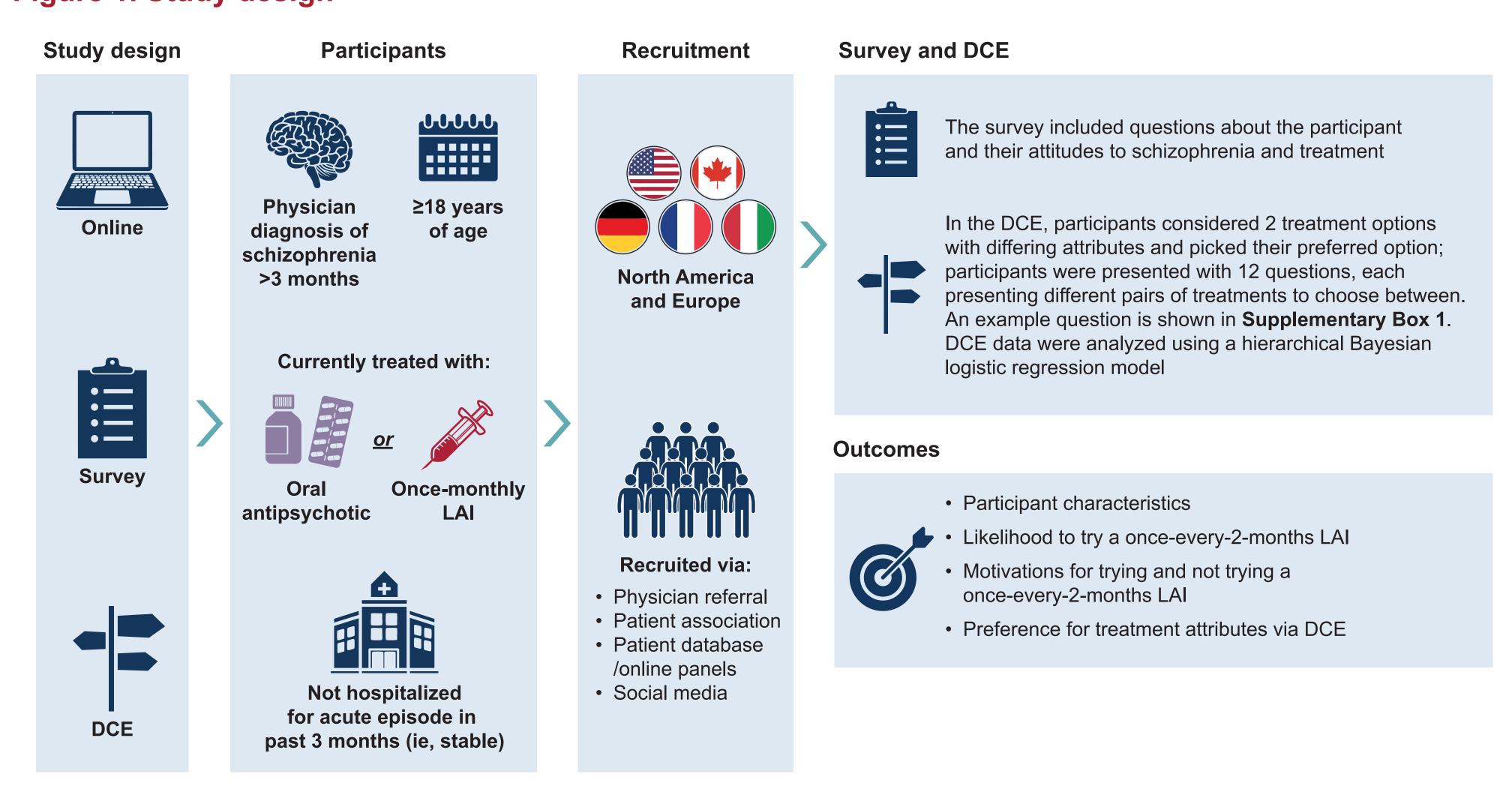
The secondary objective was to explore these preferences based on the current antipsychotic treatment a patient is receiving.

Methods

- The study design is shown in Figure 1.
- The study design incorporated a discrete choice experiment (DCE). DCEs are based on the assumptions that interventions, services or policies can be described by characteristics or attributes, and that value depends on the levels of these attributes. Survey responders are presented with a number of choices that involve different levels of attributes. An example of a DCE question is shown in Supplementary Box 1 (please scan the QR code to access supplementary content).

Figure 1. Study design

DCE, discrete choice experiment; LAI, long-acting injectable

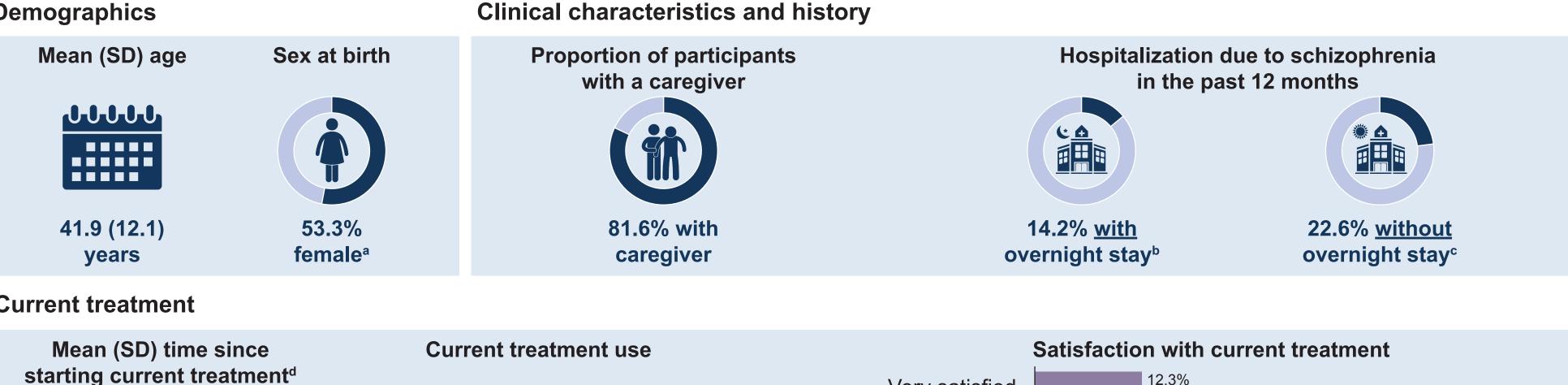


Results

LAI, long-acting injectable

- An overview of the characteristics of the overall population (N=212) is provided in Figure 2.
- The likelihood of participants trying a once-every-2-months LAI is shown in Figure 3, and the motivations for trying or not trying a once-every-2-months LAI are shown in Figure 4.
- Results of the DCE that evaluated strength of preference for antipsychotic treatment attributes are shown in Figures 5a (those currently receiving daily oral medication) and 5b (those currently receiving a once-monthly LAI).
- The relative importance of treatment attributes to participants is shown in Figure 6.

Figure 2. Characteristics of the overall population (N=212)



Very satisfied Oral medication Once-monthly LAI

Figure 3. Likelihood to try a once-every-2-months LAI

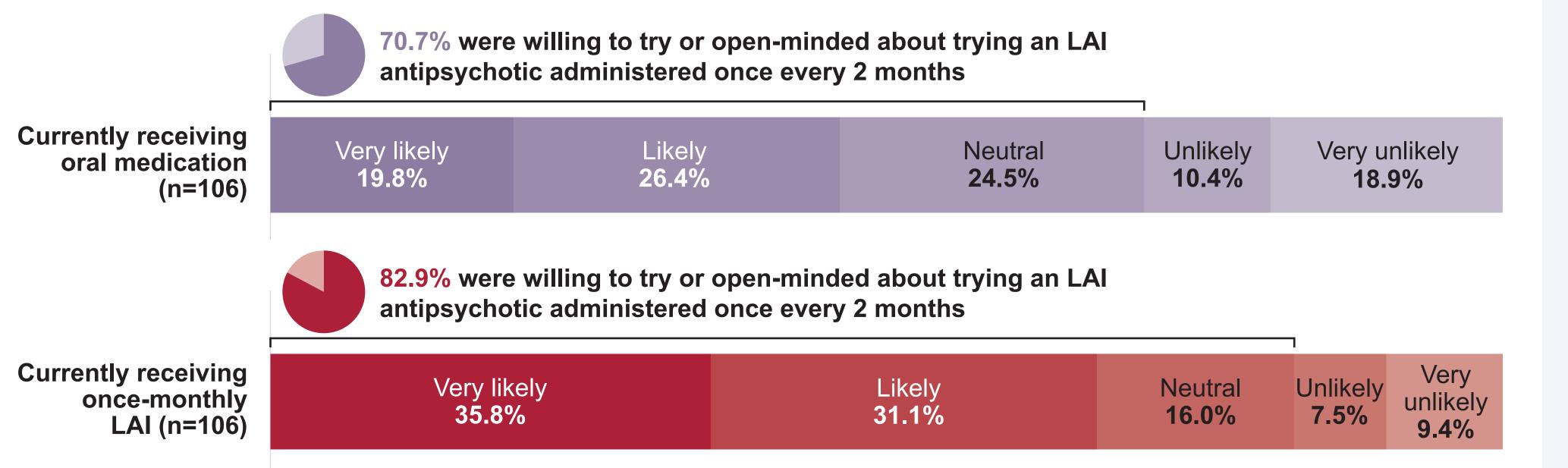
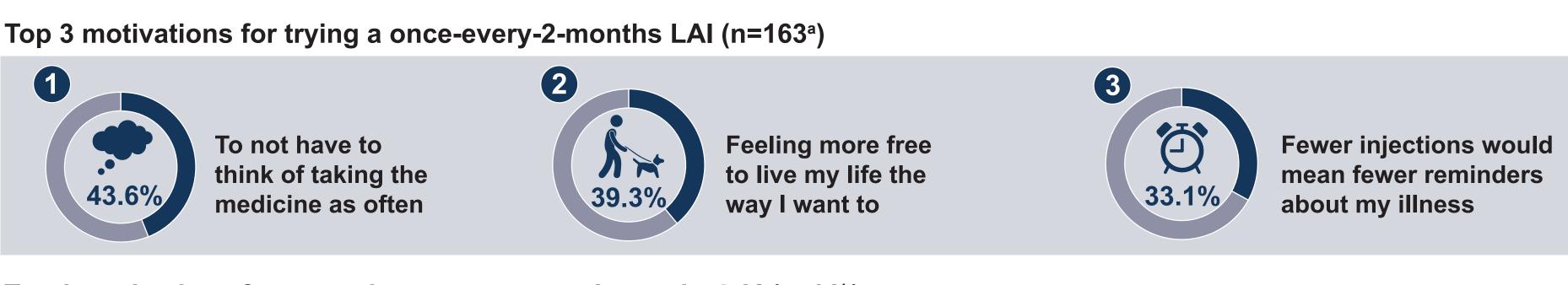


Figure 4. Motivations for trying or not trying a once-every-2-months LAI



Top 3 motivations for <u>not</u> trying a once-every-2-months LAI (n=92b)

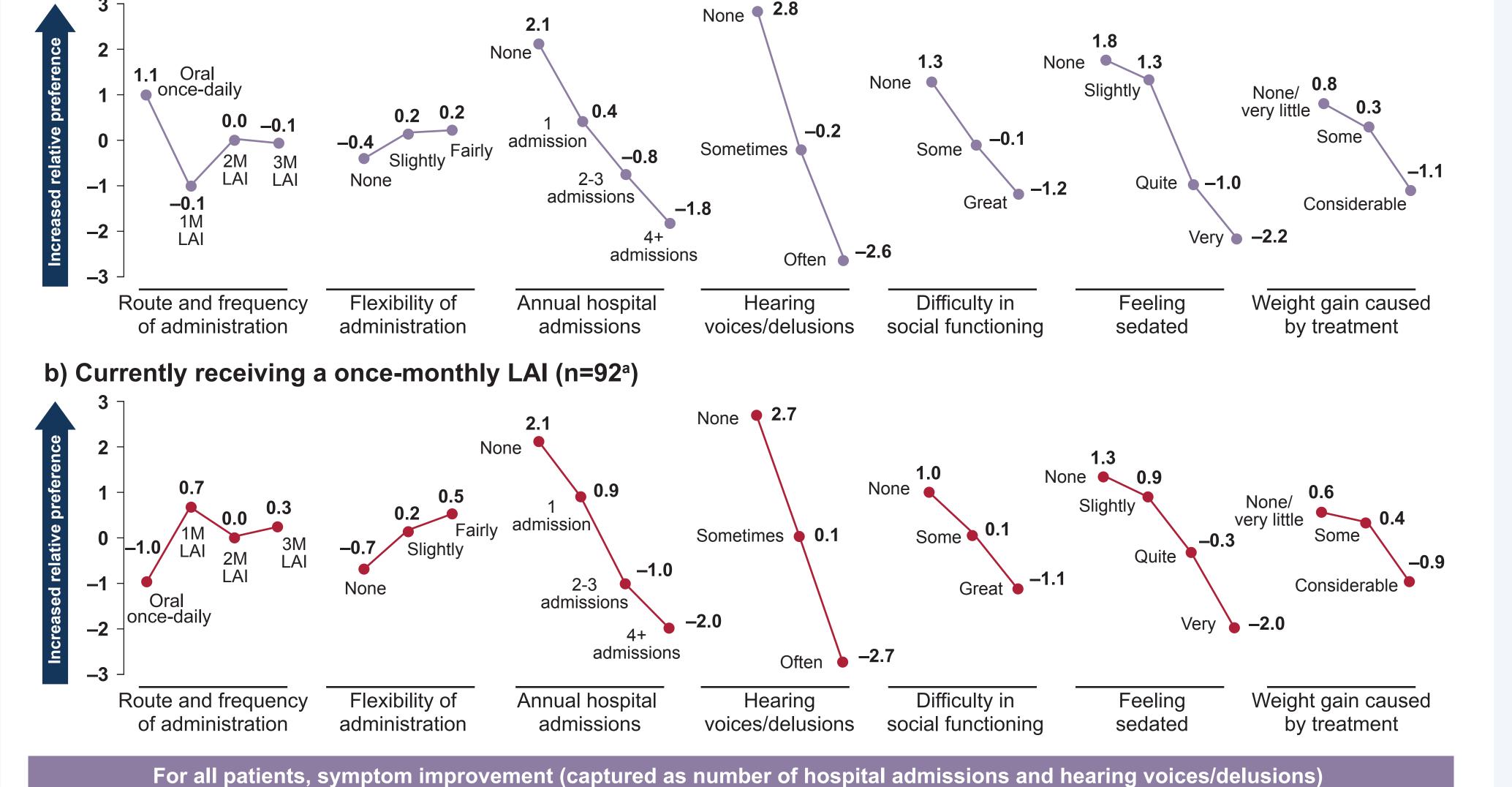
before next injection

To see a breakdown of other motivating factors, please scan the QR code to access Supplementary Figure 1.

^aParticipants who were very likely, likely, or neutral about trying an LAI antipsychotic administered once every 2 months; ^bparticipants who were neutral, unlikely, or very unlikely to try an LAI antipsychotic administered once every 2 months;

Symptoms will emerge

Figure 5. Preference weights for antipsychotic treatment attributes a) Currently receiving oral medication (n=98^a)



was the most important attribute of a treatment. Participants tended to prefer the route and frequency

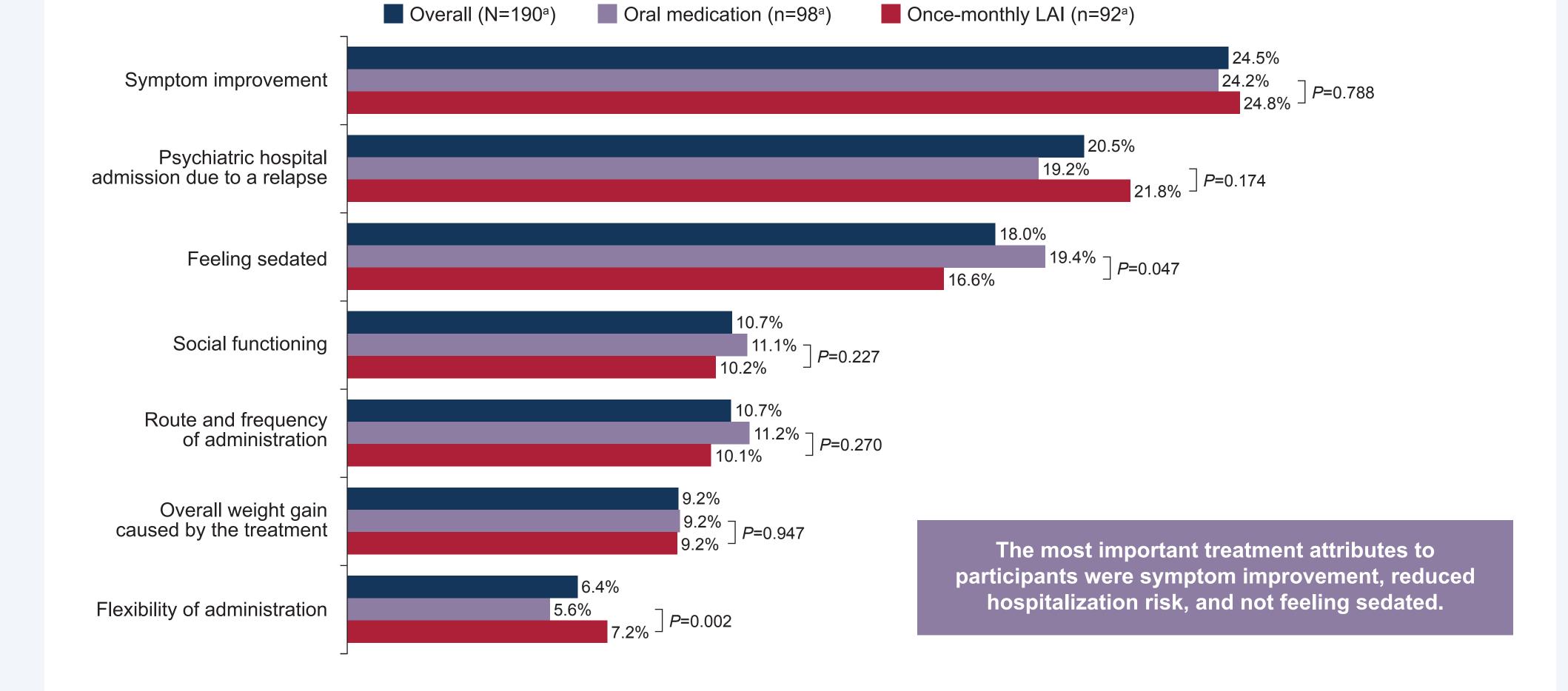
of administration of the medication they were currently receiving.

^aExcludes responses from participants with inconsistent answers in the DCE 1M, once-monthly; 2M, once every 2 months; 3M, once every 3 months; DCE, discrete choice experiment; LAI, long-acting injectable

^aExcludes responses from participants with inconsistent answers in the DCE. P values were calculated by Student's t test

DCE, discrete choice experiment; LAI, long-acting injectable

Figure 6. Relative importance of treatment attributes



Strengths

• The study utilized robust preference elicitation methods, including a DCE, and adhered to best practice outlined by The Professional Society for Health Economics and Outcomes Research (ISPOR) for this type of research.

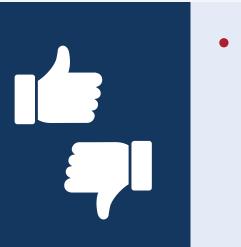
Limitations

- The online nature of the study limited the eligible population to patients with access to a computer and who were comfortable using it, and the use of convenience sampling may have led to under- and/or over-representation of certain groups.
- While the DCE methodology of this study involved selecting between treatments based on 7 medication attributes, it is possible that other factors not included in the DCE may also influence patient preferences, such as physician recommendation, and clinical, financial, or emotional impacts of selecting a particular treatment.

Conclusions



 The majority of people living with schizophrenia were willing to try or open-minded about trying an LAI antipsychotic administered once every 2 months, with greater acceptance among those currently receiving a once-monthly LAI compared with oral medication.



 The primary motivations for trying a once-every-2-months LAI were 'to not have to think of taking the medicine as often' and feeling 'more free to live my life the way I want to', consistent with perceived benefits indicated in a previous qualitative study¹³ and suggesting that people living with schizophrenia may feel less burdened by a treatment with less frequent administration. Fear of needles was the most common reason for not trying a once-every-2-months LAI.



 DCE results suggested that treatment effectiveness and safety remain key determinants of acceptability; consistent with this, 2 of the 3 most common reasons for **not** being willing to try a once-every-2-months LAI were concerns about LAI efficacy and safety.



An LAI antipsychotic given once every 2 months may be acceptable to people living with schizophrenia, especially those currently receiving a once-monthly LAI antipsychotic.

References

1. Lin et al. Front Psychiatry 2021; 12: 695672.

- 2. Markowicz-Piasecka et al. Pharmaceutics 2023; 16 (1): 28.
- 3. Yan et al. Adv Ther 2018; 35 (10): 1612–1625.
- 4. Rubio et al. Schizophr Bull 2021; 47 (6): 1611–1620. 5. Lin et al. CNS Drugs 2021; 35 (5): 469-481.
- 6. Kishimoto et al. Lancet Psychiatry 2021; 8 (5): 387–404. . Pietrini et al. Int J Psychiatry Clin Pract 2021; 25 (3): 307–315.
- 8. Milz et al. Neuropsychiatr Dis Treat 2023; 19: 531–545. 9. Rise et al. Nord J Psychiatry 2021; 75 (4): 257–265.
- 10. Barnett & Pappa. Patient Prefer Adherence 2023; 17: 1603-1610. 11. Robinson et al. Adv Ther 2023; 40 (5): 2249–2264.
- 12. Pungor et al. BMC Psychiatry 2021; 21 (1): 30.
- 13. Pappa et al. Patient Prefer Adherence 2025; 19: 1179–1195.

Disclosures

KH, MY: employees of H. Lundbeck A/S.

CB: employee of Otsuka Pharmaceutical Europe Ltd.

SN: employee of Otsuka Pharmaceutical Development & Commercialization Inc. XG, AS: employees of Oracle Life Sciences.

AM: employee of H. Lundbeck A/S at the time of the study.

Acknowledgments

Medical writing support was provided by Alex Lowe, PhD, and colleagues at Cambridge (a division of Prime, Cambridge, UK), funded by Otsuka Pharmaceutical Development & Commercialization Inc. (Princeton, NJ, USA) and H. Lundbeck A/S (Valby, Denmark).

The sponsors thank the patients and their families who participated in this study.

Sponsorship

This work was supported by Otsuka Pharmaceutical Development & Commercialization Inc. (Princeton, NJ, USA) and H. Lundbeck A/S (Valby, Denmark).

Experiencing more side

effects due to higher

medication dose