EXAMINING THE REAL-WORLD PSYCHOSOCIAL IMPACT OF AUTOMATED INSULIN DELIVERY SYSTEMS

ANURADHA KRISHNAN, ALAN BELTRAN, TREVOR BELL, PHILLY DE PIANTE, RICHARD WOOD

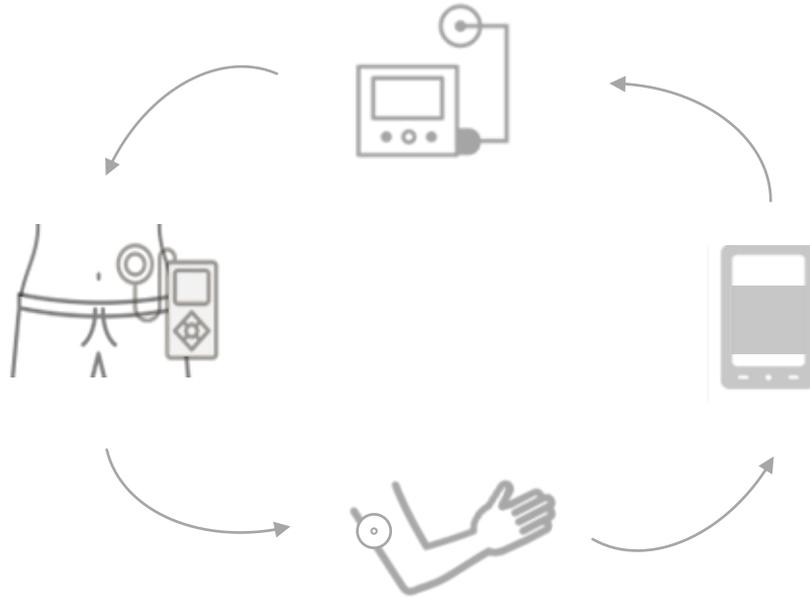dQ&A MARKET RESEARCH, INC.

SAN FRANCISCO, CALIFORNIA, USA

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DISCLOSURES

The research in this presentation was carried out and funded by dQ&A, Inc., which provides research services for a fee to its clients.

dQ&A has several clients (>10) in the diabetes field, though none directly funded this research.

HYBRID CLOSED-LOOP SYSTEM

Glycemic
Outcomes

Daily
Burden

RESEARCH GOALS

- Examine the real-world psychosocial impact of automated insulin delivery (AID) systems among people with diabetes

Research Questions

1. How satisfied are users with AID systems?

2. How do users perceive algorithm performance?

3. Does AID reduce diabetes-related burden?

4. What factors are associated with higher satisfaction?

METHODOLOGY

- Study Design: Cross-sectional online survey

- Fieldwork: April – May 2025

- Participants: N = 1,403 people with diabetes on AID system (T1A and T2I)

- Countries: France, Germany, Italy, Netherlands, Spain, Sweden, United Kingdom, Canada

- Respondents were incentivized for their participation

- Measures

  - AID system satisfaction

  - Perceived algorithm aggressiveness

  - Satisfaction with diabetes management

  - Psychosocial outcomes (burden, sleep, concerns)

RESULTS // AID SYSTEM SATISFACTION

50%

(%T2B, 10-pt scale)
Of all AID users are
highly satisfied with
their system overall

38%

(%T2B, 10-pt scale)
Of all users are highly
satisfied with their overall
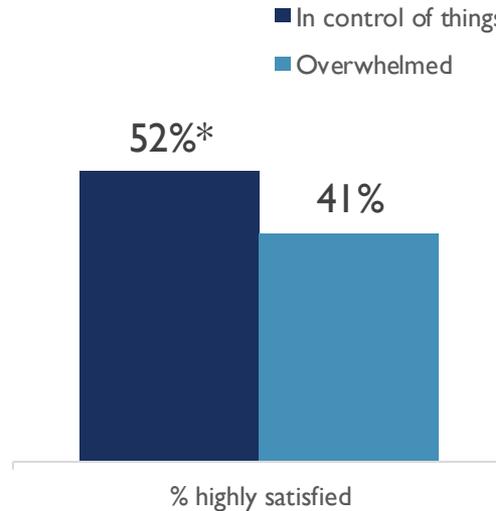diabetes management
while using their AID system

*Statistical significance tested at the 95% confidence level (p<0.05).
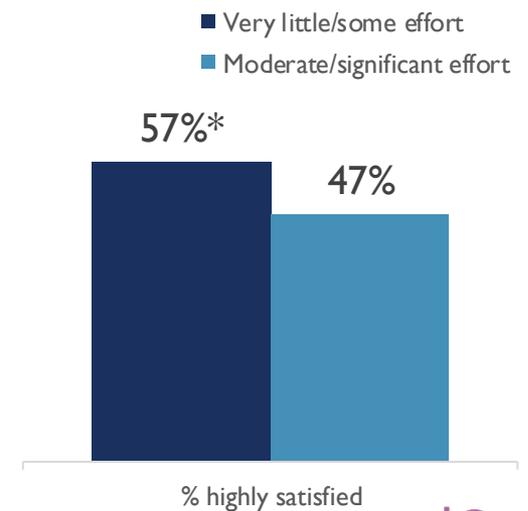
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RESULTS // AID SYSTEM SATISFACTION

50%

(%T2B, 10-pt scale)
Of all AID users are highly satisfied with their system overall

Satisfaction by feelings towards diabetes management

■ In control of things
■ Overwhelmed

52%*

41%

% highly satisfied

Satisfaction by effort managing diabetes

■ Very little/some effort
■ Moderate/significant effort

57%*

47%

% highly satisfied

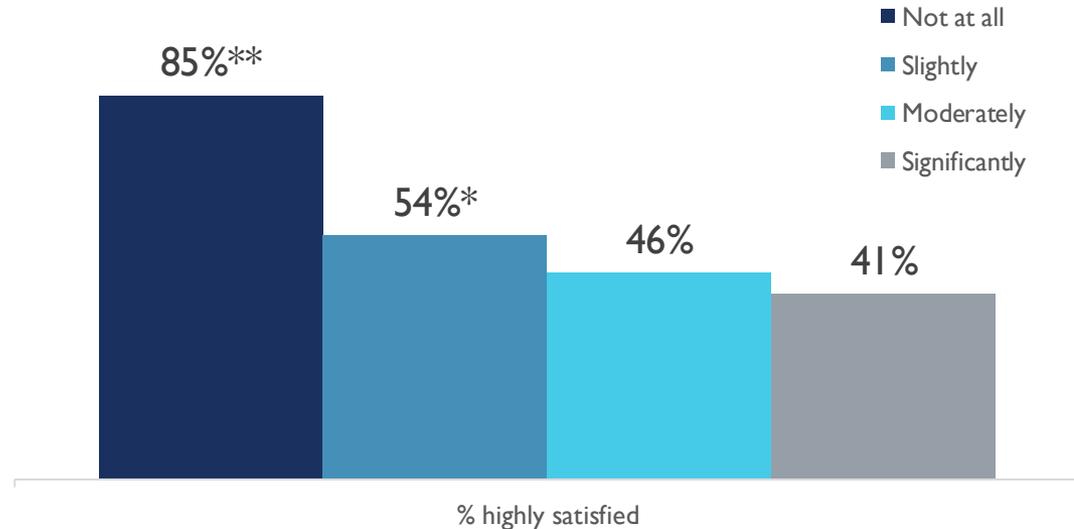*Statistical significance tested at the 95% confidence level (p<0.05).

RESULTS // AID SYSTEM SATISFACTION

50%

(%T2B, 10-pt scale)
Of all AID users are highly satisfied with their system overall

Satisfaction by extent diabetes management interferes with life

Legend:
- **Not at all** (dark navy)
- **Slightly** (medium blue)
- **Moderately** (light blue)
- **Significantly** (grey)

85%** — Not at all
54%* — Slightly
46% — Moderately
41% — Significantly

% highly satisfied

*Statistical significance tested at the 95% confidence level (p<0.05).
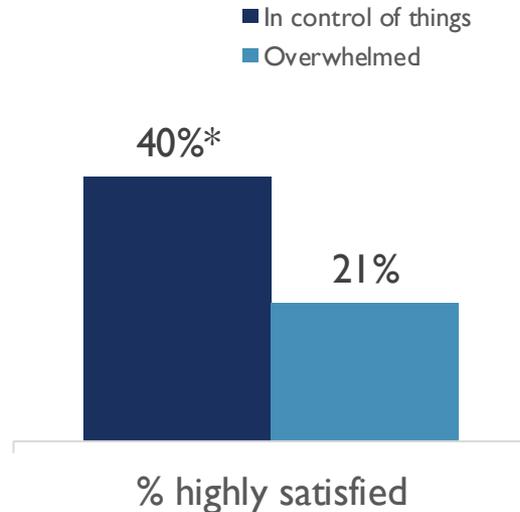
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RESULTS // SATISFACTION WITH DIABETES MANAGEMENT

38%

(%T2B, 10-pt scale)

Of all users are highly satisfied with their overall diabetes management while using their AID system

Satisfaction by feelings towards diabetes management

■ In control of things
■ Overwhelmed

40%*

21%

% highly satisfied

Satisfaction by effort managing diabetes

■ Very little/some effort
■ Moderate/significant effort

47%*

33%

% highly satisfied

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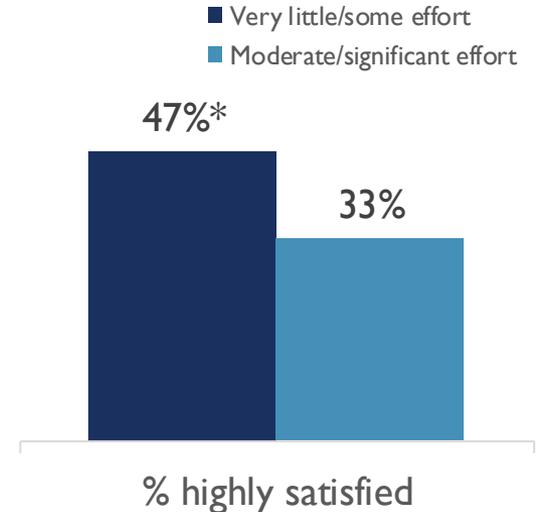*Statistical significance tested at the 95% confidence level (p<0.05).

38%

(%T2B, 10-pt scale)

Of all users are highly satisfied with their overall diabetes management while using their AID system

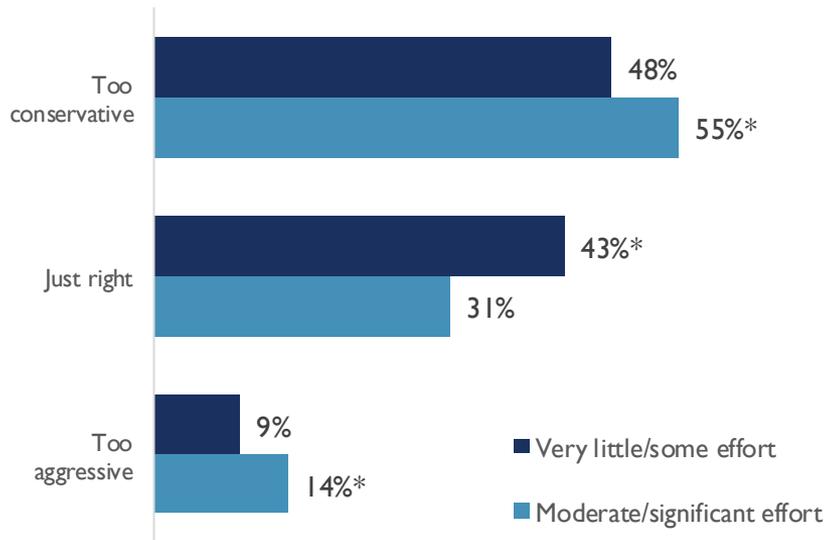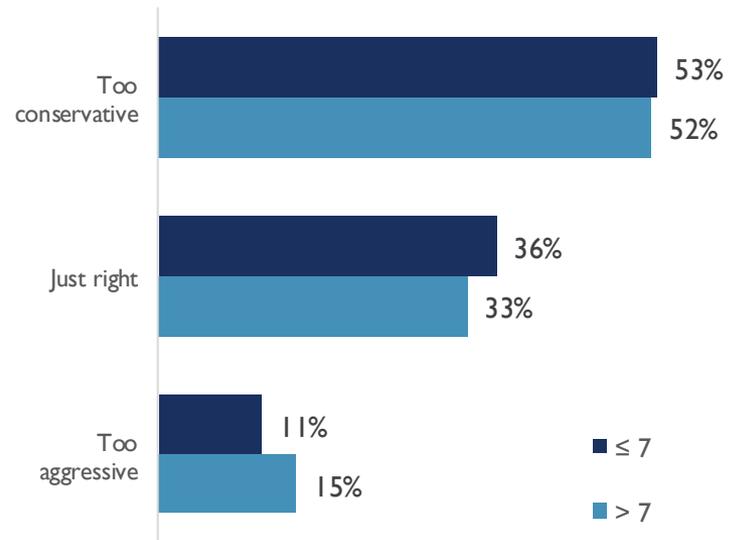## Satisfaction by extent diabetes management interferes with life

87%**

43%*

32%

27%

- Not at all
- Slightly
- Moderately
- Significantly

% highly satisfied

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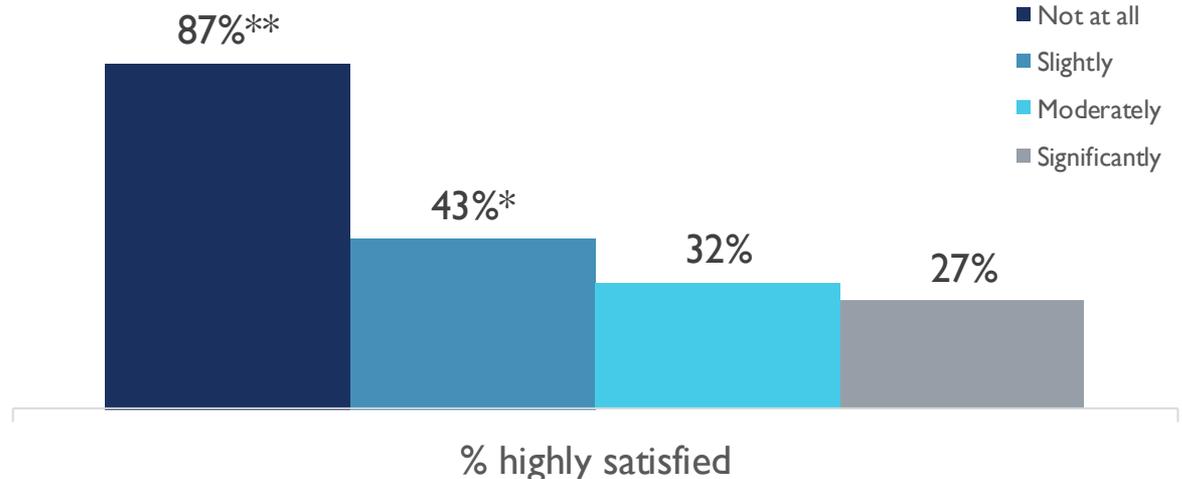
*Statistical significance tested at the 95% confidence level (p<0.05).

RESULTS // PERCEPTIONS OF AID ALGORITHM

Perceptions of Algorithm by Effort

Too conservative: 48% (Very little/some effort), 55%* (Moderate/significant effort)

Just right: 43%* (Very little/some effort), 31% (Moderate/significant effort)

Too aggressive: 9% (Very little/some effort), 14%* (Moderate/significant effort)

■ Very little/some effort
■ Moderate/significant effort

Perceptions of Algorithm by A1c

Too conservative: 53% (≤ 7), 52% (> 7)

Just right: 36% (≤ 7), 33% (> 7)

Too aggressive: 11% (≤ 7), 15% (> 7)

■ ≤ 7
■ > 7

*Statistical significance tested at the 95% confidence level (p<0.05).

RESULTS // BURDEN-RELIEVING OUTCOMES

Impact Of Aid Systems On Reducing Burden By Diabetes Management Interference

%T2B 10-pt agreement scale

My AID system...	Not at all	Slightly	Moderately	Significantly
Helps prevent diabetes from interrupting my life	83%	46%	28%	17%
Allows me to put less effort into actively managing my diabetes	81%	46%	36%	25%
Allows me to think less about my diabetes	83%	49%	33%	23%
Makes me feel more in control of my diabetes management	89%	51%	39%	27%
Lessens concerns about long-term complications from my diabetes	78%	43%	31%	21%
Improves my sleep quality	67%	45%	40%	30%

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CONCLUSIONS

- 50% satisfied with AID systems vs. 38% satisfied with diabetes management

- User experiences vary substantially, indicating that the benefits of AID are not uniform across all people with diabetes

- Perceived control and reduced management effort are key drivers of satisfaction and positive psychosocial outcomes

- Users' perceptions of algorithm performance appear to reflect how burdensome diabetes management feels, not just glycemic control

- Takeaways: continued improvements in algorithm design, personalization, and user education may help increase confidence and ensure more consistent benefits across diverse users

Thank you!

Questions? Contact anu.krishnan@d-qa.com

dQ&A, San Francisco, CA, USA