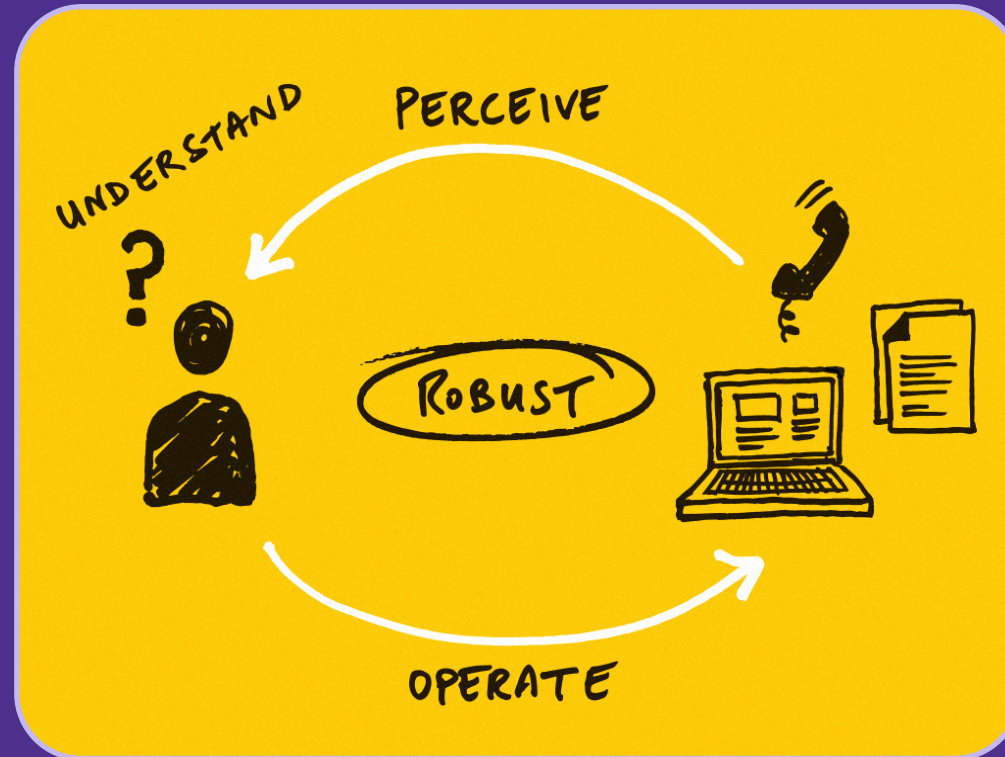




# AI for research accessibility

# 4 Principles of Accessibility

- Perceivable
- Understandable
- Operable
- Robust



Source: <https://accessibility.blog.gov.uk/2016/05/16/what-we-mean-when-we-talk-about-accessibility-2/>

# Access is not accessibility

A total of 191 university students were enrolled in the study. The median age was 20 years. They were mostly male (66.5%) and aged 20-25. Students living with the family (67.5%) or living outside (72.8%) the campus were the most represented (Table 1).

[Collapse inline](#) | [View popup](#)

Predictor	Alcohol Use n (%)		COR	p-value	AOR	95% CI		p-value
	Yes n=126	No n=65				Lower	Upper	
<b>Sex</b>								
Female	42 (55.6)	22 (34.4)	1					
Male	84 (66.1)	43 (33.9)	1.02	0.943				
<b>Age group</b>								
<20	36 (50.7)	35 (49.3)	1		1	—	—	
20-25	65 (74.7)	22 (25.3)	2.87	<b>0.002</b>	2.89	1.45	5.91	<b>0.003</b>
25-30	17 (73.9)	6 (26.1)	2.75	0.056	2.37	0.85	7.37	0.112
30-43	8 (80.0)	2 (20.0)	3.89	0.099	4.72	1.06	33.3	0.063
<b>Living situation</b>								
Family	83 (64.3)	46 (35.7)	1					
Alone	31 (64.6)	17 (35.4)	1.01	0.976				
Collocation	12 (85.7)	2 (14.3)	3.33	0.126				
<b>Study level</b>								
Bachelor	98 (63.2)	57 (36.8)	1					
Master	24 (82.8)	5 (17.2)	2.79	<b>0.048</b>				
Doctorate	4 (57.1)	3 (42.9)	0.78	0.745				
<b>Faculty &amp; school</b>								
Literature	18 (72.0)	7 (28.0)	1					
Sciences	82 (64.6)	45 (35.4)	0.71	0.475				
Medicine	16 (64.0)	9 (36.0)	0.69	0.545				
Polytechnic	6 (66.7)	3 (33.3)	0.78	0.764				
Others	4 (80.0)	1 (20.0)	1.56	0.713				
<b>Living in the campus</b>								
Yes	30 (57.7)	22 (42.3)	1		1	—	—	
No	96 (69.1)	43 (30.9)	1.64	0.141	1.72	0.84	3.50	0.134
<b>District of residence</b>								
Nkolndongo	4 (57.1)	3 (42.9)	1					
Byem-Assi	23 (59.0)	16 (41.0)	1.08	0.928				
Dyoungolo	7 (87.5)	1 (12.5)	5.25	0.207				
Efoulan	66 (66.0)	34 (34.0)	1.46	0.635				
Mvog-Ada	4 (66.7)	2 (33.3)	1.50	0.725				
Nkolbisson	8 (80.0)	2 (20.0)	3.00	0.318				
Odza	6 (75.0)	2 (25.0)	2.25	0.468				
Others	8 (61.5)	5 (38.5)	1.20	0.848				
<b>Residential area</b>								
Urban	113 (65.7)	59 (34.3)	1					
Rural	13 (68.4)	6 (31.6)	1.13	0.812				
<b>Social charge</b>								
Yes	19 (70.4)	8 (29.6)						
No	107 (65.2)	57 (34.8)	0.79	0.603				
<b>Smoking</b>								
No	75 (59.1)	52 (40.9)	1		1	—	—	
Yes	51 (79.7)	13 (20.3)	2.72	<b>0.005</b>	2.68	1.31	5.72	<b>0.008</b>
<b>Drug use</b>								
No	87 (62.1)	53 (37.9)	1					
Yes	39 (76.5)	12 (23.5)	1.98	0.067				

COR: Crude Odds Ratio; AOR: Adjusted Odds Ratio; CI: Confidence Interval

Blurry tables 😞

# Discoverable is not accessible

JOURNAL OF EDUCATIONAL AND PSYCHOLOGICAL CONSULTATION, 7(4), 345-354  
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## Behavioral Consultation as a Work in Progress: A Reply to Witt, Gresham, and Noell

William P. Erchul and Ann C. Schulte  
*North Carolina State University*

Witt, Gresham, and Noell (this issue) have raised the intriguing question "What's behavioral about behavioral consultation?" We agree with many points Witt et al. make, but disagree with some others. Although far from perfect, behavioral consultation (BC) is the most researched model of school consultation, the model that has the greatest amount of empirical support, and the one that school consultants are most likely to use. Rather than blame Bergan and Kratochwill (1990) for deficiencies of BC related to its supposed lack of adherence to behavioral theory and practice, we see value in recognizing the model's present strengths and continued development. We suggest that BC is viewed most fairly as a "work in progress."

Witt, Gresham, and Noell (this issue) are to be commended for presenting a "no holds barred" critique of behavioral consultation (BC; Bergan & Kratochwill, 1990). Standing on their foundation of behaviorism and upholding the highest standards for clinical research, Witt et al. argue that BC has fallen short of the mark. Although raising a number of concerns about the extent to which BC adheres to principles of behaviorism, their central thesis is that we lack conclusive evidence that BC works (i.e., that it results in changes in child behavior). Presumably, we lack this evidence because BC does not work—a claim they support by anecdotal evidence and a lack of recent efficacy studies of BC. Witt et al. conclude that the "fundamental

**NOTE:** Kathleen C. Harris of Arizona State University West is column editor for THE CONSULTANT'S CORNER.

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Low-res scan 😞

# US vs UK students in higher education

US

With a disability

Neurodiverse

**18.5 million**

**3.7 million**

**2 million**

UK

**2.9 million**

**0.33 m**

**0.17 m**

# Neurodiversity needs

Difficulty focusing – identifying what is important

Feelings of overwhelm – not knowing where to start

Sensory overload – too much information at once



# Common challenges

A route into the literature

Reduction of cognitive load

'Chat to your documents' gives answers ...

... but not understanding or learning

Verify and compare

Analyse and synthesise

# What works

- Self-testing (retrieval practice)
- Spaced repetition (flashcards)
- Interleaving (non-linear exploration)





# AI beyond discovery and chat

# Technical approach

- Combine generative AI with traditional machine learning and symbolic AI
- Classifiers preselect content to feed to LLMs
- Exclude generated entities not in the original text

# Inverted pyramid



The current study found no strong evidence that moderately less sleep increased the likelihood of seizures, consistent with previous work

Tweet

## Authors

Stirling, R. E.; Hidajat, C. M.; Grayden, D. B., et al.

## Results

For P10 there was a decrease in their average **sleep** duration in the week leading up to a seizure; P16 showed an increase in average sleep duration in the week leading up to a seizure

## Conclusion

Showed oversleep was weakly associated with increased, rather than decreased, seizure risk

Demonstrated that fluctuations in bedtime and waketime were more informative than **sleep** duration for identifying seizure risk

Download citation

## Explore this study

Key concepts

Highlights

Abstract

Synopsis

Summary

Comparative analysis

## Change view

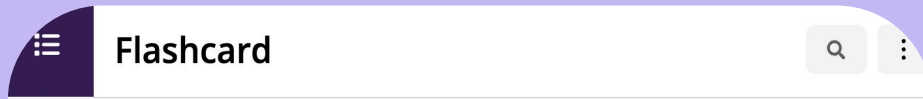
Compact


All Sections


Spotlight


Expand all






Introduction 


Study subjects and analysis 


Methods 



Results 

Participants who had at least 28 nights of sleep recorded with their smartwatch (N = 44) were included. A total of 3894 self-reported seizures (M = 88, SD = 130, Range = 1 - 523) and 17078 nights (M = 388, SD = 351, Range = 32-1701) of recorded sleep were included in the study. See Supplementary Table 1 for detailed participant demographic information. [Figure 1](#) shows an example of two consecutive nights of sleep recorded using the smartwatch.

[Read more +](#)

Discussion 

Conclusion 

Limitations  

# Distillation



# Interactivity

Contributions ▾ ×

## Flashcard

Search 🔍

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We suggest that BC is viewed most fairly as a "work in progress."

We argue that BC in its current form has a number of weaknesses, but that outcome data still support its efficacy

How much accuracy do we lose by asking the consultee to be the primary data collection agent, and how much does this affect treatment efficacy? We argue that these are empirical questions, and the efficacy data for BC suggest that consultee-collected data can and do result in client change

the precise descriptions and discrete nature of the target behaviors and the immediacy of the data collection in BC are methodological features that have been found to decrease observer bias

Full text

Although we agree with many of Witt et al.'s concerns about BC, we maintain (to paraphrase Mark Twain) that reports of its death are greatly exaggerated. In this article, we comment on the views we share with Witt et al as well as the points on which our perspectives differ. We argue that BC in its current form has a number of weaknesses, but that outcome data still support its efficacy. A conception of BC as a work in progress rather than a static entity will allow the field to build on current knowledge rather than abandon a model that still offers more than any other model of school consultation.

### OUR STARTING POINT: BC WORKS

behavioral consultation

Putting aside Witt et al.'s failures with BC, the outcome research on BC published over the past 25 years has consistently documented its efficacy. For example, as a part of a comprehensive meta-analysis, Medway and Updyke (1985) examined the results of 18 studies of BC published from 1972 to 1982. These studies collectively reported 18 consultee outcome measures and 41 client outcome measures. Medway and Updyke found that the average effect size (ES) per study was .72, indicating that participants in BC scored on average nearly three fourths of a standard deviation higher on outcome measures than did nonparticipants. Adapting metaanalytic procedures for single-case designs, Kratochwill, Elliott, and Busse (1995) recently reported an average client ES of .95 for 23 cases of BC. Finally, Sheridan, Welch, and Orme (in press) completed a literature review of 21 BC outcome studies published from 1986 to 1995 and noted that 88% of all reported outcomes were positive, 11% were neutral, and 0% were negative.

Witt et al propose replacing current BC practices (read: indirect services) with a behavior analytic approach to intervention development and implementation (read: direct services). We have no doubt that adoption of this proposal would increase client ESs for BC to resemble more closely those reported for various



# Legible tables

Download image x

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# Comparative analysis

## Confirmation of earlier findings

These data were compared with measurements of plaque size 72 hours post infection (hpi) that served as collective indicators of attenuation in both replication and cell-to-cell spread (Fig. 2B–C). In line with previous work showing that gE is more important in cell-to-cell spread than in virus assembly [7,34,35,36], defects in replication of the  $\Delta$ gE virus were not detected

34. Polcicova, K., Goldsmith, K., Rainish, B. L., Wisner, T. W. & Johnson, D. C. The Extracellular Domain of Herpes Simplex Virus gE Is Indispensable for Efficient Cell-to-Cell Spread: Evidence for gE/gI Receptors. *J. Virol.* 79, 11990–12001 (2005).



Show findings +

# Verification

## Confirmation of earlier findings

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Resu

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Hide findings



### Scholarcy findings

The Herpes simplex virus glycoprotein heterodimer gE/gI plays a critical role in promoting cell-to-cell spread but does not obviously function during entry of extracellular virus into cells

There was a strong correlation between loss of cell-to-cell spread function and binding of immunoglobulin. gE ET domain mutants 277, 291, and 348 bound gI, produced mature forms of gE that reached the cell surface, and were incorporated into virions yet produced plaques similar to gE null mutants

plaque sizes of this mutant were (Fig. 2B–C). gE interacts with a pUL16 and pUL21, providing one layers during virus

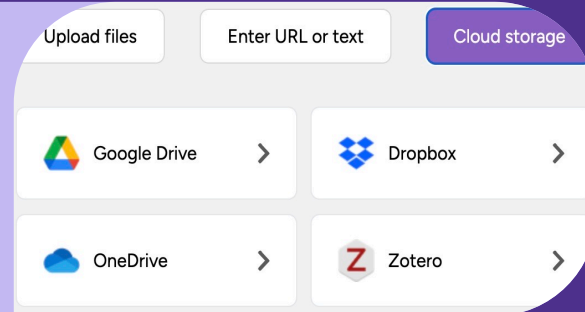
ed with Hoechst, and instead the clei collected from tiled X-ray ratio of the  $\Delta$ gE (N=14) and  $\Delta$ gE suggesting gE does not play a role in near egress and served as a positive study[11,12]

rays are not associated with r linear organisation we suspect they be reliably resolved by cryoSXT, wn to be important for intracellular

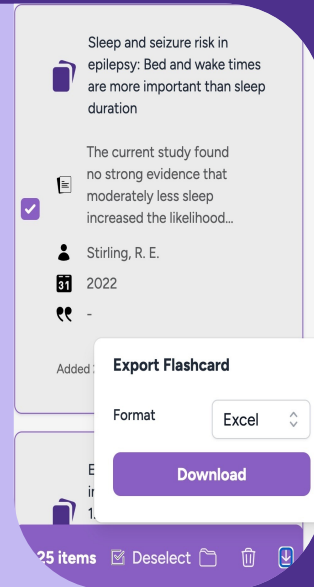


# Possible research workflow

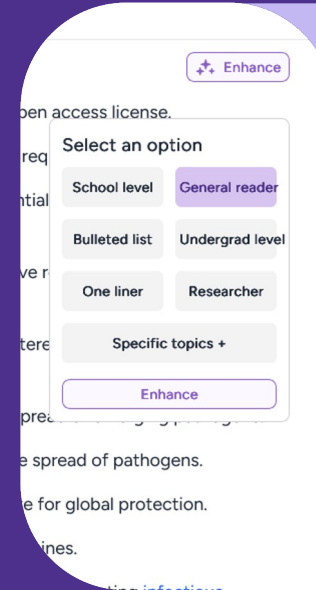
Import from anywhere



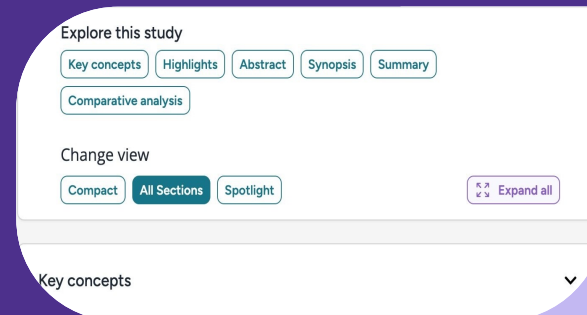
Export to anywhere



Explain for different audiences



Explore and analyse interactively



# Bibliography

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- <https://www.innerdrive.co.uk/guides/the-best-ways-to-revise/>



**Thanks for listening!**  
**Questions?**



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Founder, Scholarcy

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