

附件一

行政院國家科學委員會專題研究計畫 成果報告
 期中進度報告

抗憂鬱劑導致之女性性功能障礙及以 sildenafil 治療之效果評估

補助機構：國科會

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ANTIDEPRESSANT-INDUCED SEXUAL DYSFUNCTION AMONG CLINIC FEMALE OUTPATIENTS IN TAIWAN

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Objective:

This study was intended to investigate the prevalence of antidepressant-induced sexual dysfunction among female clinic patients in a teaching general hospital in Taipei, Taiwan.

Methods:

This was part of a 12-month prospective study on clinic female patients. We administered a composite questionnaire of female sexual dysfunction for Taiwanese female outpatients aged 18-60. The questionnaire consists of 16 questions: 13 with continuous variables and 3 with categorical variables. The questionnaire was derived and translated from all the available references in the literature on the topic (Table 1-4). The subjects completed the questionnaire before and after having taken antidepressants for 4 weeks.

Insert Tables 1-4 About Here

Results:

A total of 204 patients completed the pre-medication questionnaire, and 84 of them completed the same follow-up questionnaire 4 weeks after their receiving antidepressants. Most of the questionnaire were administered by the same female assistant.

Insert Fig. 1-4 About Here

We presented here only 3 samples of results of rough scores (mean±SD): The rough scores (mean±SD) of Question # 1 "How long does it take to make you feel that you want to have sex?" were 2.62±0.51 for bupropion (n=13), 2.60±0.84 for mirtazapine (n=10), 2.44±0.53 for moclobemide (n= 9), 2.25±0.61 for venlafaxine (n=24), 2.40±0.52 for fluoxetine (n=10), 2.29±0.91 for sertraline (n=14), and 2.75±0.96 for fluvoxamine (n=4).

Insert Fig. 5 & 6 About Here

The rough scores (mean±SD) of Question # 3 “Do you have enough lubrication during the course of sexual intercourse?” were 3.08±0.95 for bupropion (n=13), 3.00±1.25 for mirtazapine (n=10), 3.11±0.93 for moclobemide (n= 9), 2.92±0.72 for venlafaxine (n=24), 3.00±0.67 for fluoxetine (n=10), 3.00±0.88 for sertraline (n=14), and 3.25±0.50 for fluvoxamine (n=4).

Insert Fig. 7 & 8 About Here

And the rough scores (mean±SD) of Question # 7 “You can get the kind of orgasm you wish to have?” were 3.00±1.08 for bupropion (n=13), 2.60±1.07 for mirtazapine (n=10), 2.56±0.88 for moclobemide (n= 9), 2.17±0.76 for venlafaxine (n=24), 2.20±0.79 for fluoxetine (n=10), 2.29 ±1.07 for sertraline (n=14), and 3.00±0.82 for fluvoxamine (n=4). The results of the remaining 13 post-medication questions and all the premedication questions in the questionnaire, are to be presented in figures and tables.

Insert Fig. 9 & 10 About Here

The results of this study did not show that sildenafil helped improving female sexual dysfunction induced by antidepressants (data not shown here).

Discussion

The increase of serotonin in the human body after antidepressant therapy is thought to implicate antidepressant-induced sexual dysfunction. Different antidepressants have different potential in altering CNS serotonin. Usually antidepressant, such as bupropion, without serotonin effect does not (or not likely) induce sexual dysfunction.

Insert Fig. 11 About Here

The investigators will discuss the findings of the study in the perspective of serotonin change after patients' receiving various antidepressant and the sets of questionnaire currently available in the research for sexual dysfunction, as well as compare the findings of this study with those from other investigators in gender and cross-cultural perspectives.

Acknowledgements

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Table 1: TMU-Wan Fang Hospital's Questionnaire for Female Sexual Functioning (Part 1 of 2)

1. How often do you have the desire to have sex?
2. Are you easily be aroused?
3. Do you have enough lubrication during sexual intercourse?
4. *How often do you lose your excitement after having being aroused?
5. **Do you feel that your sexual dysfunction occurred under certain circumstances? (Example, it occurred when you were with a particular sexual partner.)
6. How often do you experience orgasm?
7. Do you get the kind of orgasm you wish to have?
8. **What is your experience if you can not get the kind of orgasm you wanted?

*Question with reverse meaning in sexual functioning

**Categorical question

Table 2: TMU-Wan Fang Hospital's Questionnaire
for Female Sexual Functioning (Part 2 of 2)

9. Do you feel pleasurable when you achieve orgasm?
10. *How often do you feel hurt during the orgasm?
11. **How often do you get orgasm through masturbation?
12. How often do you experience strong urge ?
13. *Do you need some objects or strong stimulations to get aroused?
14. *Does sexual dysfunction give you distress or difficulties in your relationship with your sexual partner?
15. Are you satisfied with your sexual life?
16. **How is the quality of your life ?

*Question with reverse meaning in sexual functioning

**Categorical question

Table 3: 臺北醫學大學·市立萬芳醫院女性性功能問卷
(Part 1 of 2)

1. 您通常多久有引發性慾的感覺？
2. 您容易被引發性慾嗎？
3. 從事性行為過程中您的陰道有適當的潤濕嗎？
4. *您通常多久被引發性慾後卻失去興致？
5. **您認為您的障礙是在某些情況才發生的嗎？(ex: 只有在和某性伴侶一起時才發生)
6. 您通常多久經驗過一次高潮？
7. 您能夠達到您想要的高潮嗎？
8. **若您無法達到您想要的高潮,您是經歷了？

*Question with reverse meaning in sexual functioning

**Categorical question

Table 4: 臺北醫學大學•市立萬芳醫院女性性功能問卷
(Part 2 of 2)

9. 當達到高潮時您感受到多大的愉悅感？
10. *您通常多久有疼痛性的高潮？
11. **您通常多久透過自慰達到高潮？
12. 您通常多久有很強烈的性慾望？
13. *您需要透過物品或較強的性刺激來激發性慾嗎？
14. *性功能障礙帶給您重大壓力且影響您和性伴侶關係的建立
15. 您對您目前的性生活滿意度為何？
16. **您覺得您目前的生活品質如何？

*Question with reverse meaning in sexual functioning

**Categorical question

Fig. 1: The Female Sexual Dysfunction Study

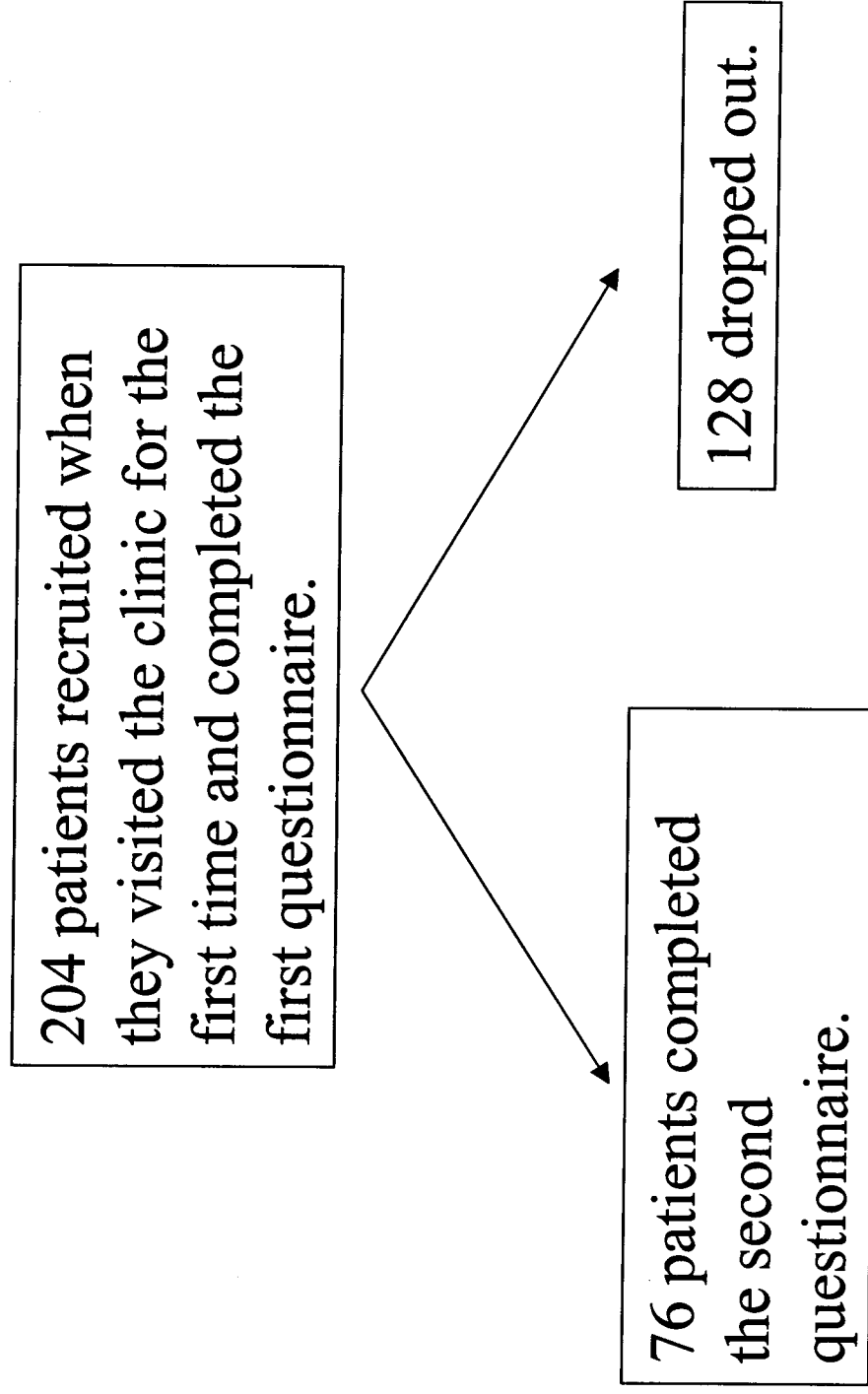


Fig. 2: The Sildenafil Study

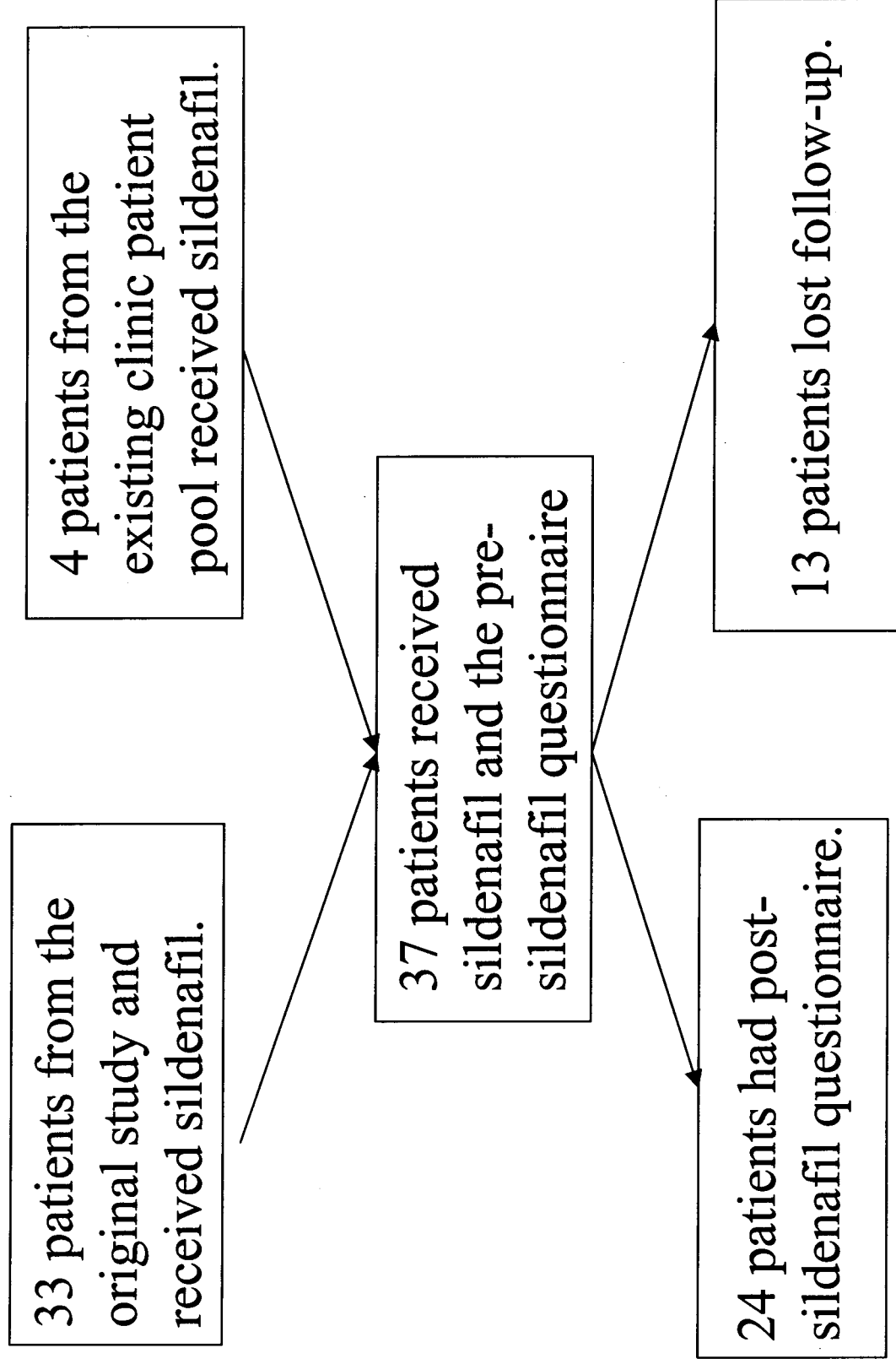


Fig. 3 Patients' Demographics

Characteristics	Bupropion	Other Antidepressants	P-Value
Age, mean (SD), years	36.63 (10.34)	35.25 (11.18)	0.74
Education background, mean (SD), (years in school)	13.25 (2.96)	13.3 (3.27)	0.96
Type of antidepressant, number (%)	8 (0.11)	10 (0.13) Mirtazapine 9 (0.12) Moclobemide 4 (0.05) Fluvoxamine 10 (0.13) Fluoxetine 14 (0.18) Sertraline 21 (0.28) Venlafaxine	

Fig 4: Comparison of clinical characteristics of patients who received bupropion and patients who received non-bupropion antidepressants

	Bupropion group (n = 8)		Non-bupropion group (n = 68)	
	Baseline	Tx for 3-weeks	Baseline	Tx for 3-weeks
HAM-A	25.25 ± 10.49	^a 18.5 ± 9.15	26.57 ± 10.25	^b 19.26 ± 8.67
HAM-D	19.25 ± 10.32	^{ns} 15.0 ± 7.17	22.24 ± 8.17	^b 14.85 ± 6.8

NS, not significant (vs baseline group, $p = 0.109$, by paired t -test)

^aSignificantly different, vs. baseline group, $p = 0.006$, by paired t -test

^bSignificantly different, vs. baseline group, $p = 0.005$, by paired t -test

Fig. 5: Desire (Question # 1: How long does it take to make you feel that you want to have sex?)

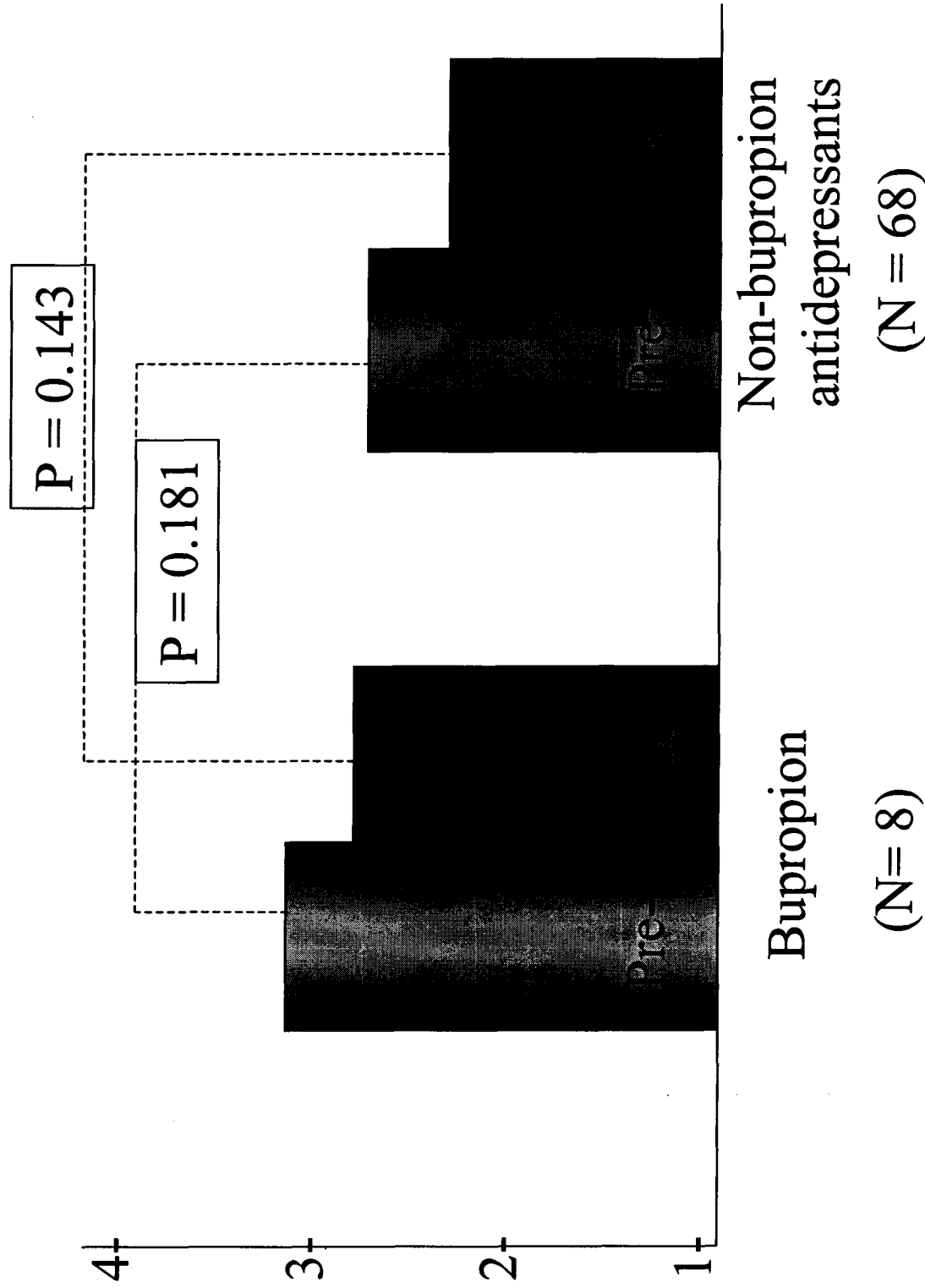


Fig. 6: Desire (Question # 1: How long does it take to make you feel that you want to have sex?)

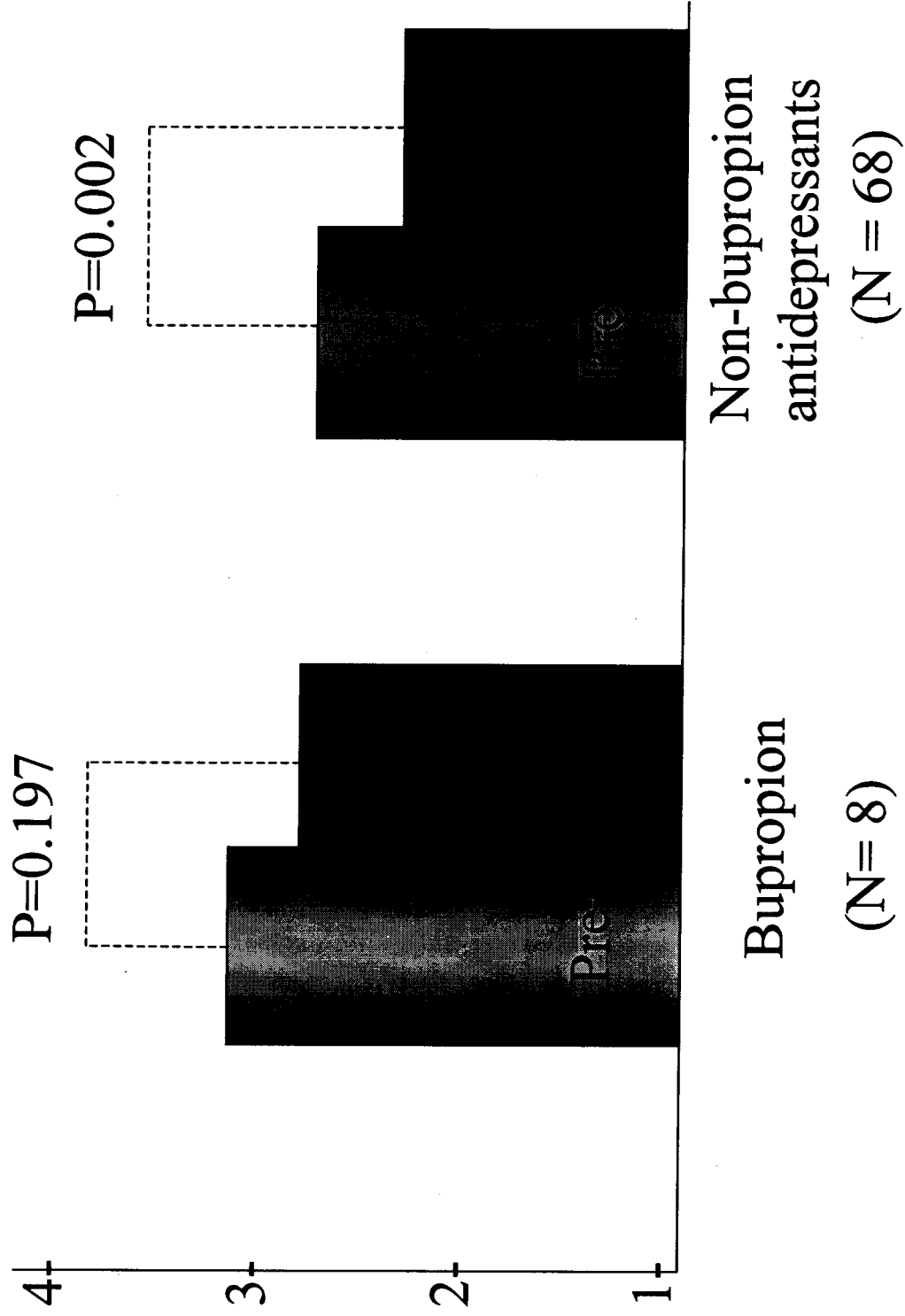


Table 7: Excitement (Question # 3 : Do you have enough lubrication during the course of sexual intercourse?)

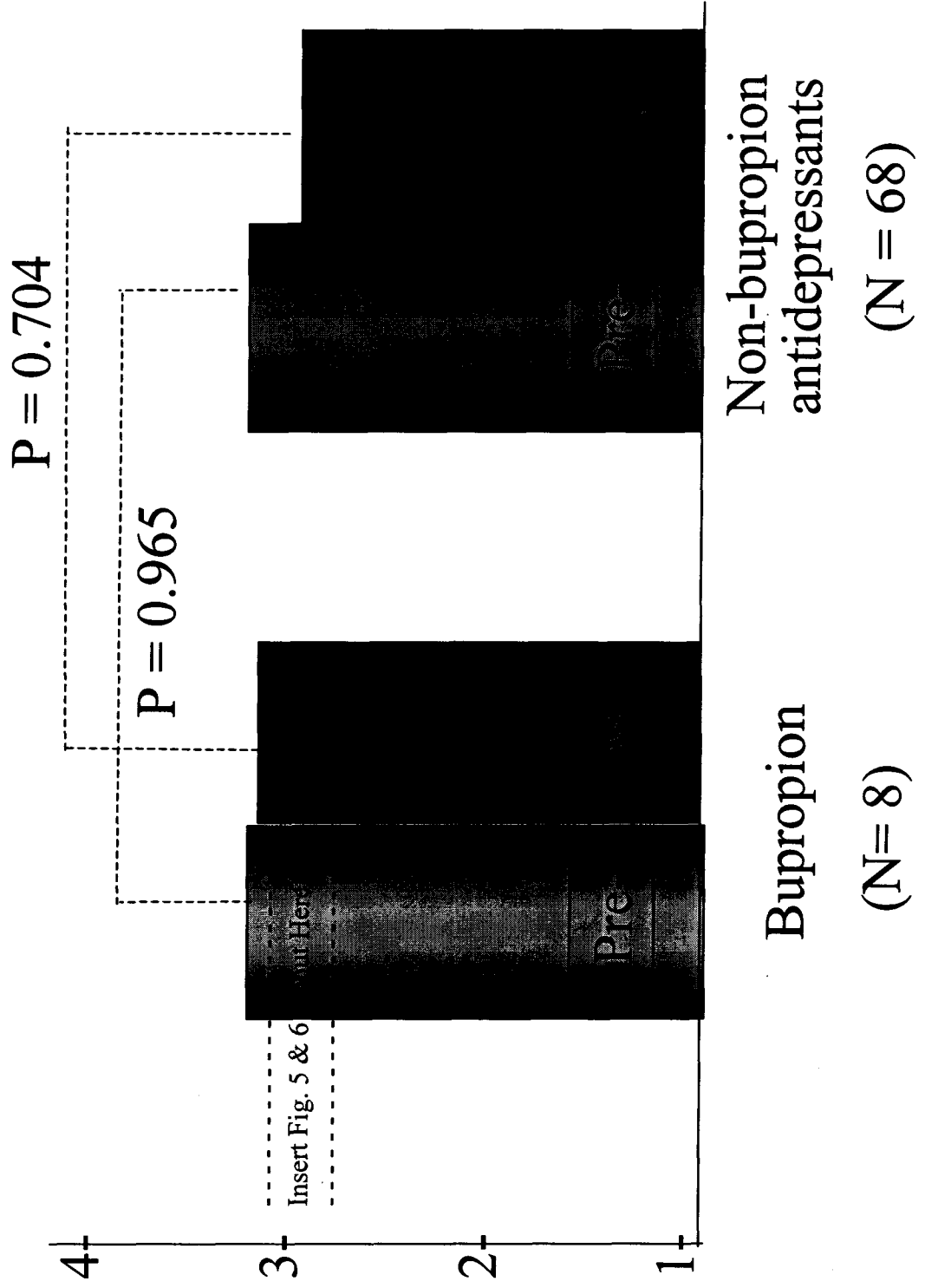


Fig 8: Excitement (Question # 3 : Do you have enough lubrication during the course of sexual intercourse?)

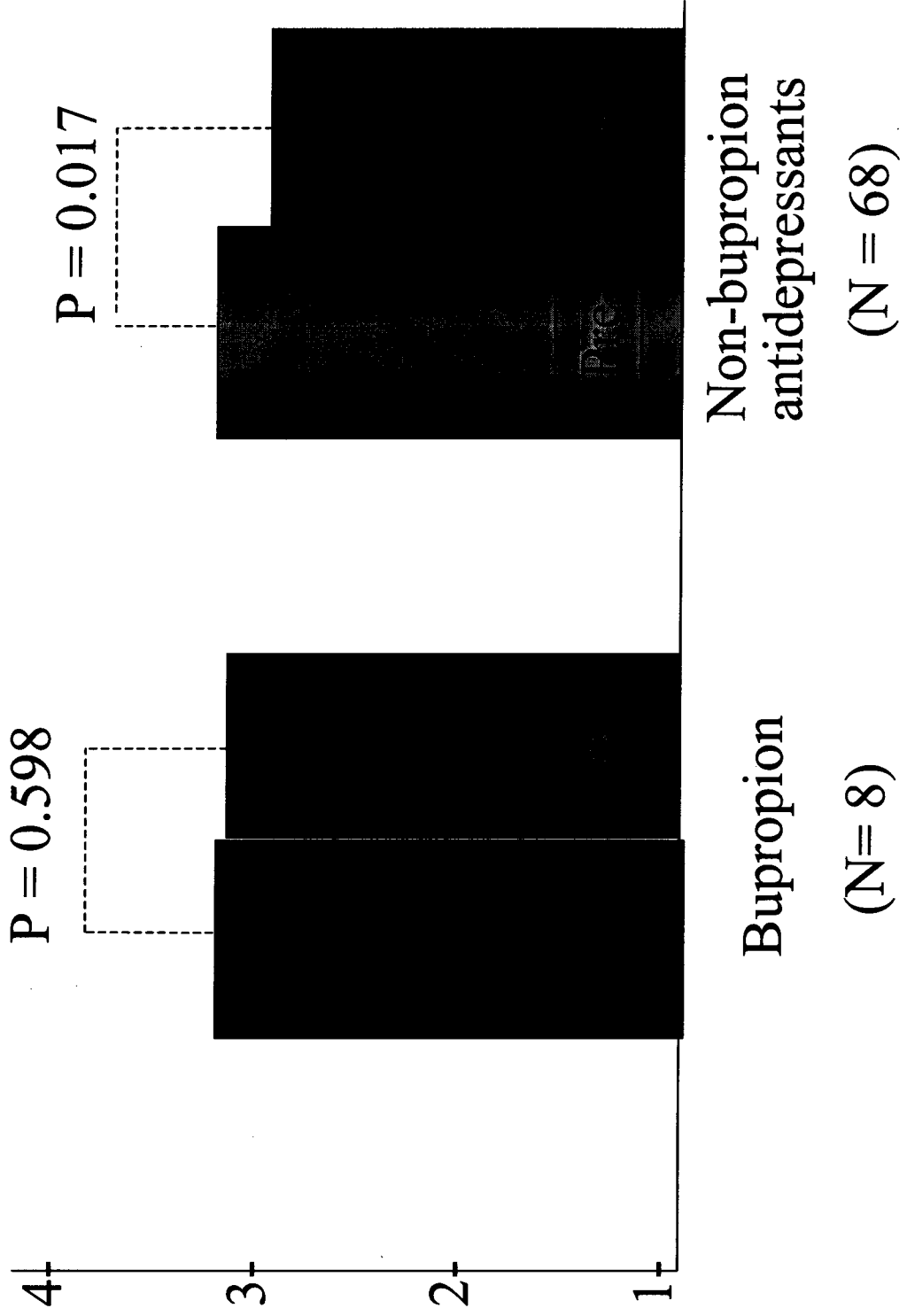


Fig. 9: Orgasm (Question # 7 Can you get the kind of orgasm you wish to have?)

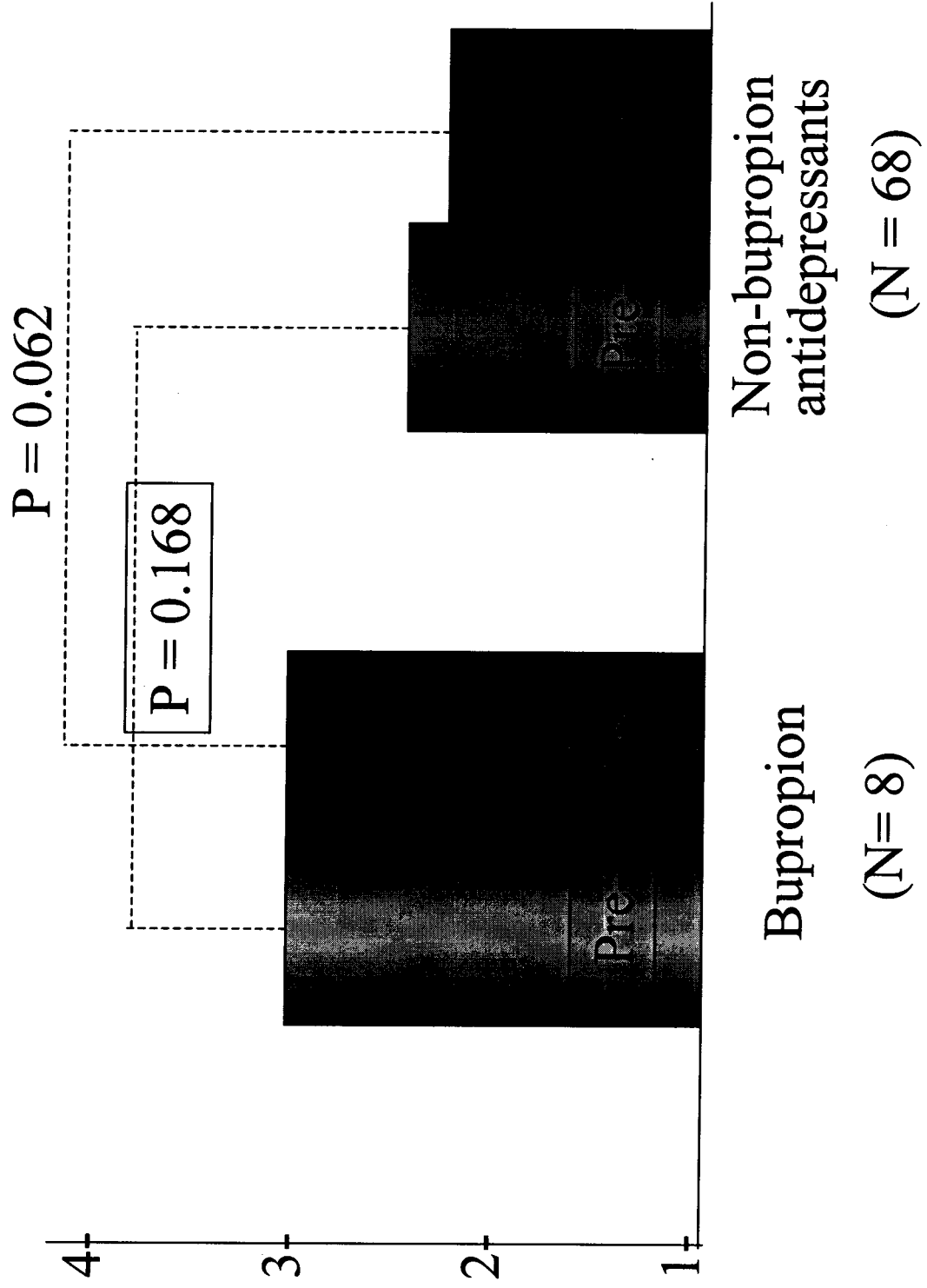


Fig. 10: Orgasm (Question # 7 Can you get the kind of orgasm you wish to have?)

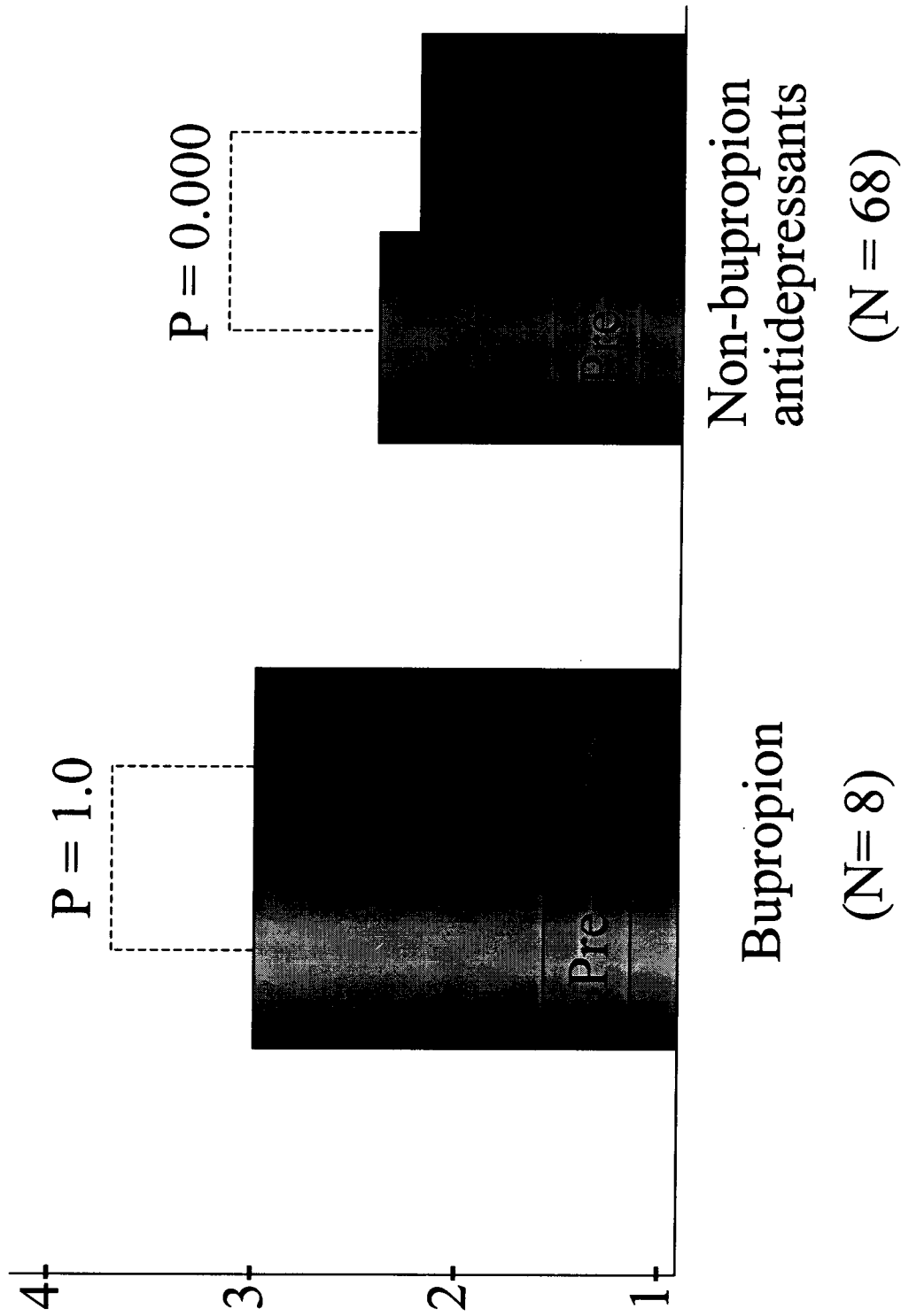
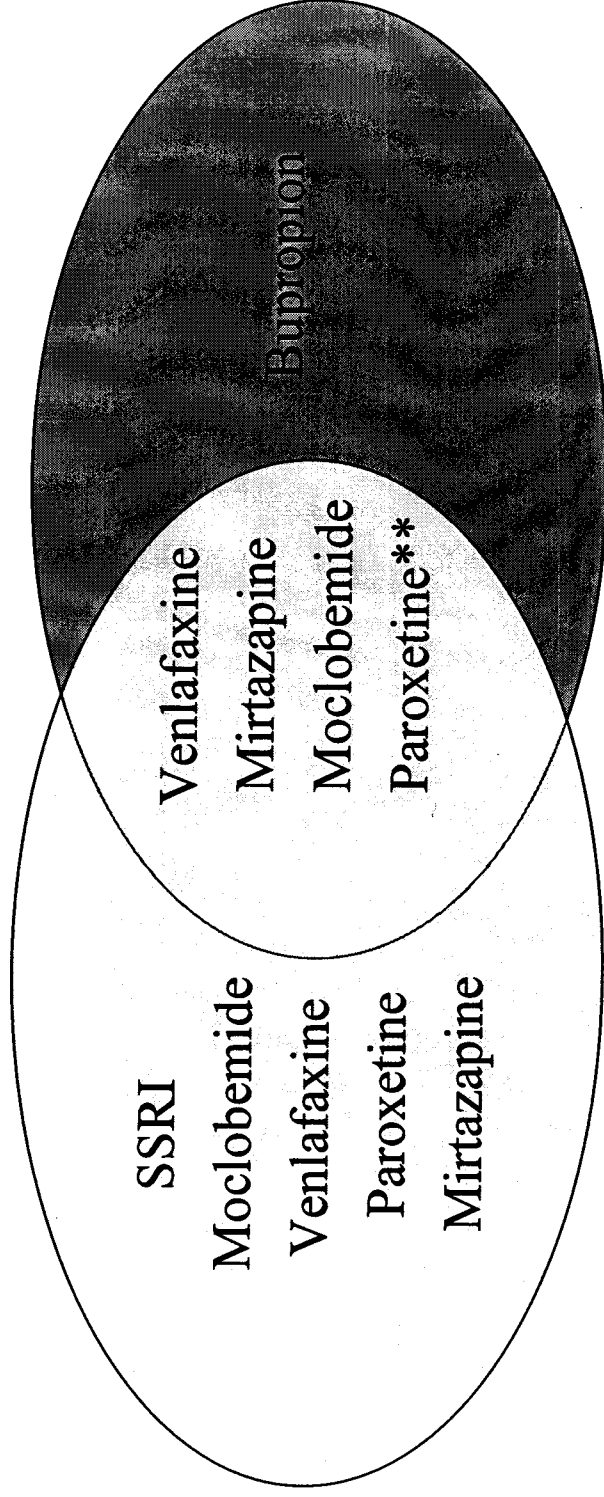


Fig. 11: The Relationship of Monoamines and Antidepressants*

5-HT-related Antidepressants Both 5-HT and NE-related antidepressants NE-related Antidepressants



*Listed are only those which can be easily prescribed to clinic therapeutic doses.

**Higher dosing may be required for GAD indication sometimes.