# Monitoring Policies at Work: Effects On Medication Use

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# What Is Monitoring?

- Supervisory

  The observation, examination and/or recording of employee work-related behaviors without technological assistance

- Electronic

  Continuous collection and analysis of management info about work performance and equipment use



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# Examples of Monitoring

## Supervisory

- Direct Observation
- Listening to calls
- Monitoring breaks

## Electronic

- Keystroke count
- Time on computer
- Email/ Internet
- Beepers
- GPS
- Video cameras



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# How widespread is prescription drug use in the United States for stress, depression and anxiety?



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# Age Adjusted Estimates of Psychotropic Drug Use from NHANES Data

| | 1988-1994 | 1999-2002 |
|---|---|---|
| Percent Using Psychotropic Drugs | 6.1 | 11.1 |
| Percent Using Antidepressants | 2.5 | 8.1 |

(Paulose-Ram, R., 2007)



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# Background

- A recent study examined rates of major depressive episodes among classes of occupations using data from 2004-2006
- Communication workers fell in the office and administrative workers category, which had a prevalence of 8.1% having major depressive episodes
- This is ranked 7th of all occupational categories (SAMHSA, 2007)



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# Sample Characteristics

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# Participant Characteristics (n = 486)

| Characteristic | Mean | Percent |
|---|---|---|
| Union Member (% yes) | | 97.7 |
| Held Union office (% yes) | | 11.1 |
| Sex (% female) | | 58.0 |
| Education (% some college or more) | | 77.4 |
| Marital Status (% partnered) | | 71.6 |
| Race/ethnicity (% white) | | 79.6 |
| Age | 44.5 | |
| Hours worked per week | 40.8 | |



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# Methods

- Individuals were randomly selected (n=486) from 8 sites
- Sites were chosen based on level of monitoring and level of alcohol and drug testing as determined by a previous national survey
- Surveys were mailed assessing policies concerning monitoring, drug and alcohol testing, and workplace and individual characteristics



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# Monitoring at Work

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# Supervisory Monitoring

| Type | Never / rarely | Occasionally | Often | Usually | Most of the time |
|---|---|---|---|---|---|
| Listen w/o knowledge | 60.6 | 20.8 | 10.1 | 3.6 | 5.0 |
| Listen with knowledge | 63.4 | 10.9 | 10.2 | 5.7 | 9.8 |
| Sit in during interactions | 61.0 | 23.8 | 9.1 | 2.5 | 3.6 |
| Use appropriate scripts | 64.1 | 10.8 | 8.9 | 6.4 | 9.8 |
| Use appropriate branding | 60.3 | 11.3 | 10.2 | 6.6 | 11.7 |
| Personal phone calls | 58.6 | 17.4 | 8.5 | 7.0 | 8.5 |
| Length of breaks | 41.3 | 20.3 | 12.6 | 8.2 | 17.6 |
| Change policy w/o notice | 55.1 | 23.3 | 9.9 | 6.1 | 5.5 |
| Other monitoring | 57.5 | 11.3 | 11.1 | 3.8 | 16.3 |



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# Factor Analysis of Supervisory Monitoring

(KMO = .89, % variance explained = 72%)

| **Eavesdropping** (alpha = .91) | **loading** | **Behavioral** (alpha = .75) | **loading** |
|---|---|---|---|
| Listen w/o knowledge | .824 | Personal phone calls | .630 |
| Listen with knowledge | .616 | Length of breaks | .722 |
| Sit in during interactions | .852 | Change policy w/o notice | .869 |
| Appropriate scripts | .835 | | |
| Appropriate branding | .864 | | |



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# Electronic Monitoring

| Type | Never / rarely | Occasionally | Often | Usually | Most of the time |
|---|---|---|---|---|---|
| Time on each customer | 45.2 | 7.5 | 6.6 | 5.5 | 35.3 |
| Calls per period | 45.1 | 5.9 | 5.3 | 4.2 | 39.6 |
| Violations of length of breaks | 44.8 | 13.2 | 5.1 | 5.5 | 31.4 |
| Number of restroom breaks | 67.5 | 6.6 | 2.4 | 4.0 | 19.6 |
| GPS of vehicle | 86.3 | 1.6 | 2.3 | 0.9 | 9.0 |
| Other | 82.0 | 2.0 | 2.6 | 2.3 | 11.1 |



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# Factor Analysis of Electronic Monitoring

(KMO = .82, % variance explained = 78%)

| Electronic Monitoring (alpha = .91) | loading |
|---|---|
| Time on each customer | .914 |
| Number of calls per period | .909 |
| Violation of length of breaks | .905 |
| Number of restroom breaks | .802 |



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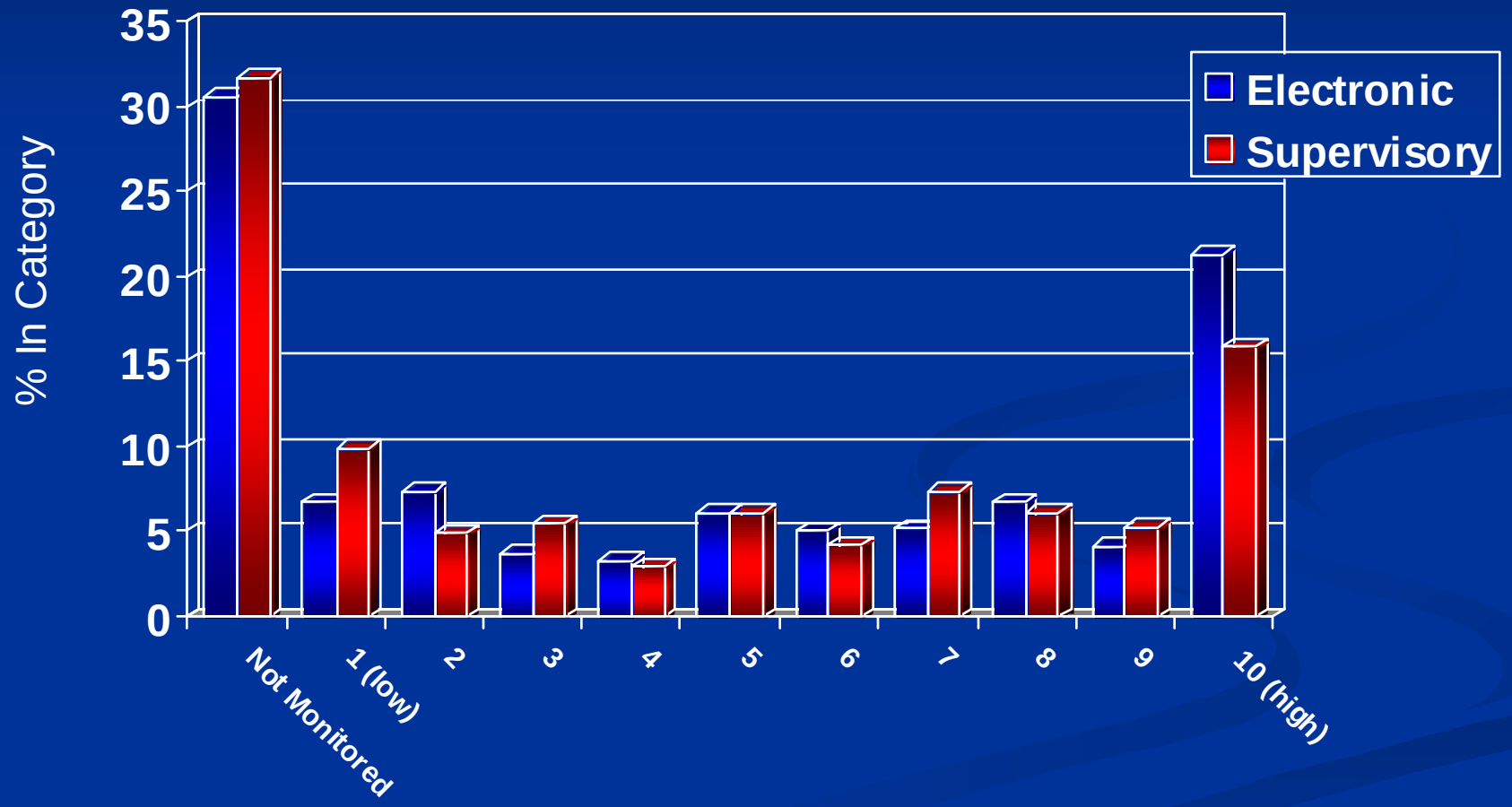
# Perceived *Stressfulness* of Monitoring



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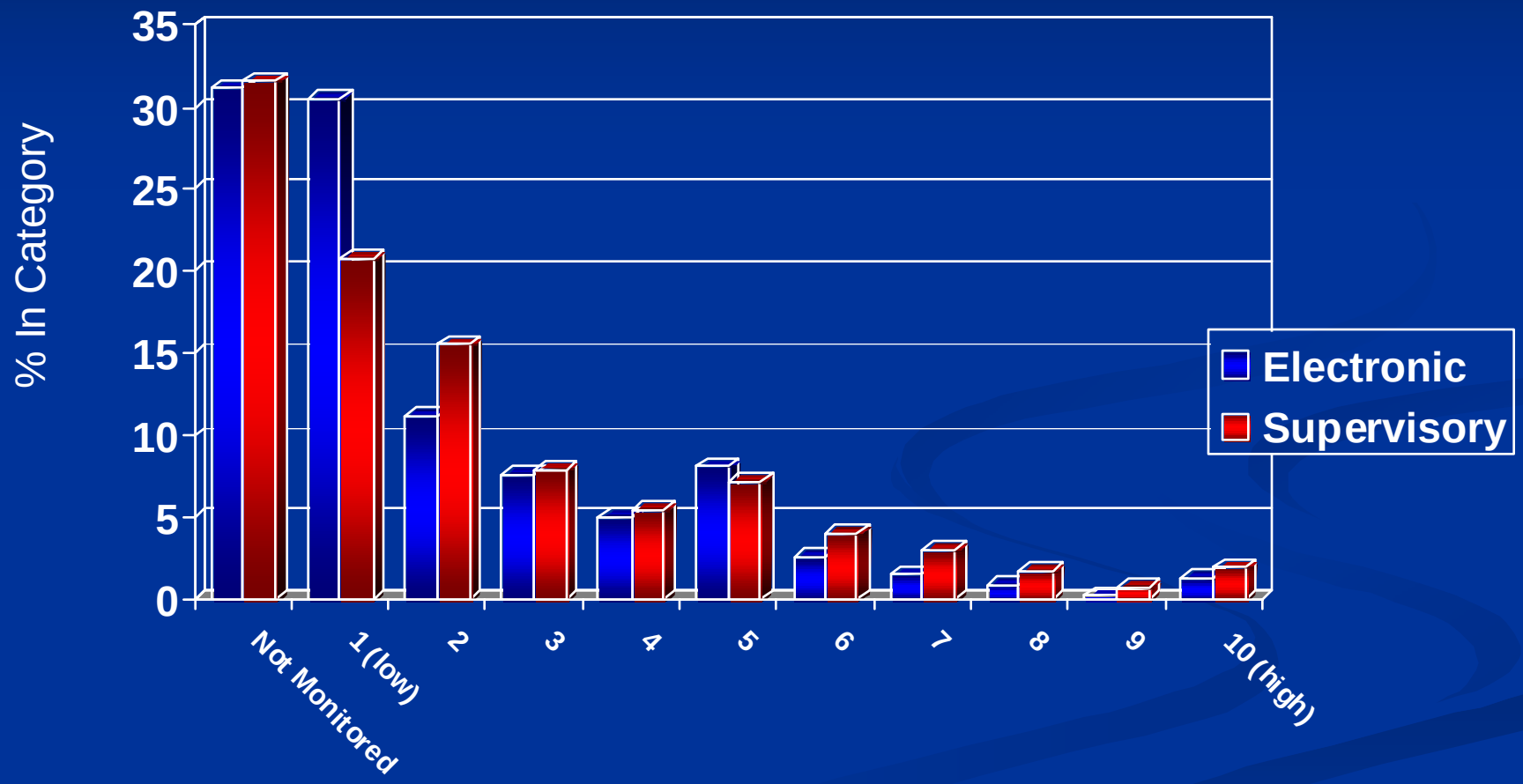
# Perceived *Helpfulness* of Monitoring



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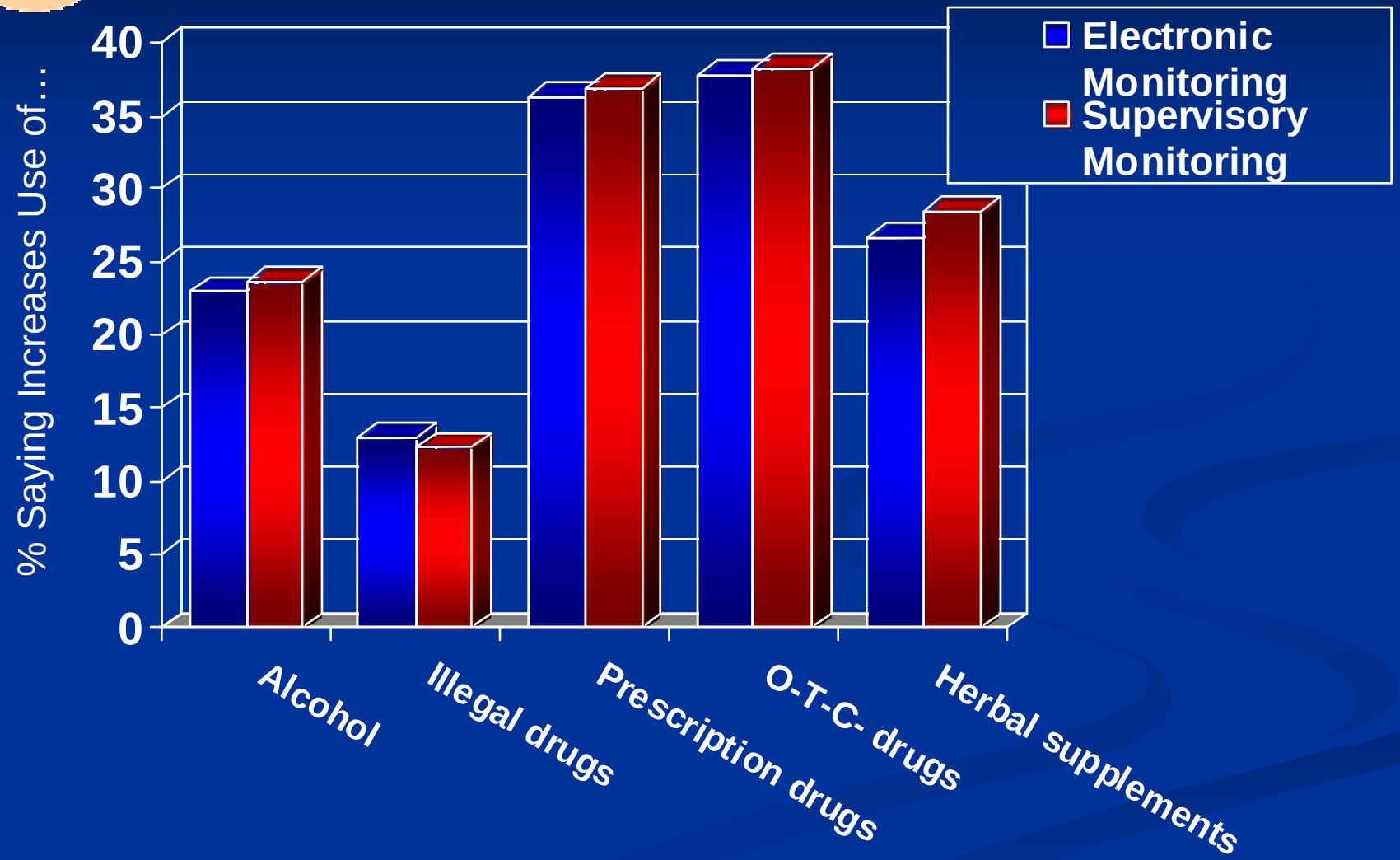
# Perceived Effects of Monitoring



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# Prescription and O-T-C Drug Use and Work

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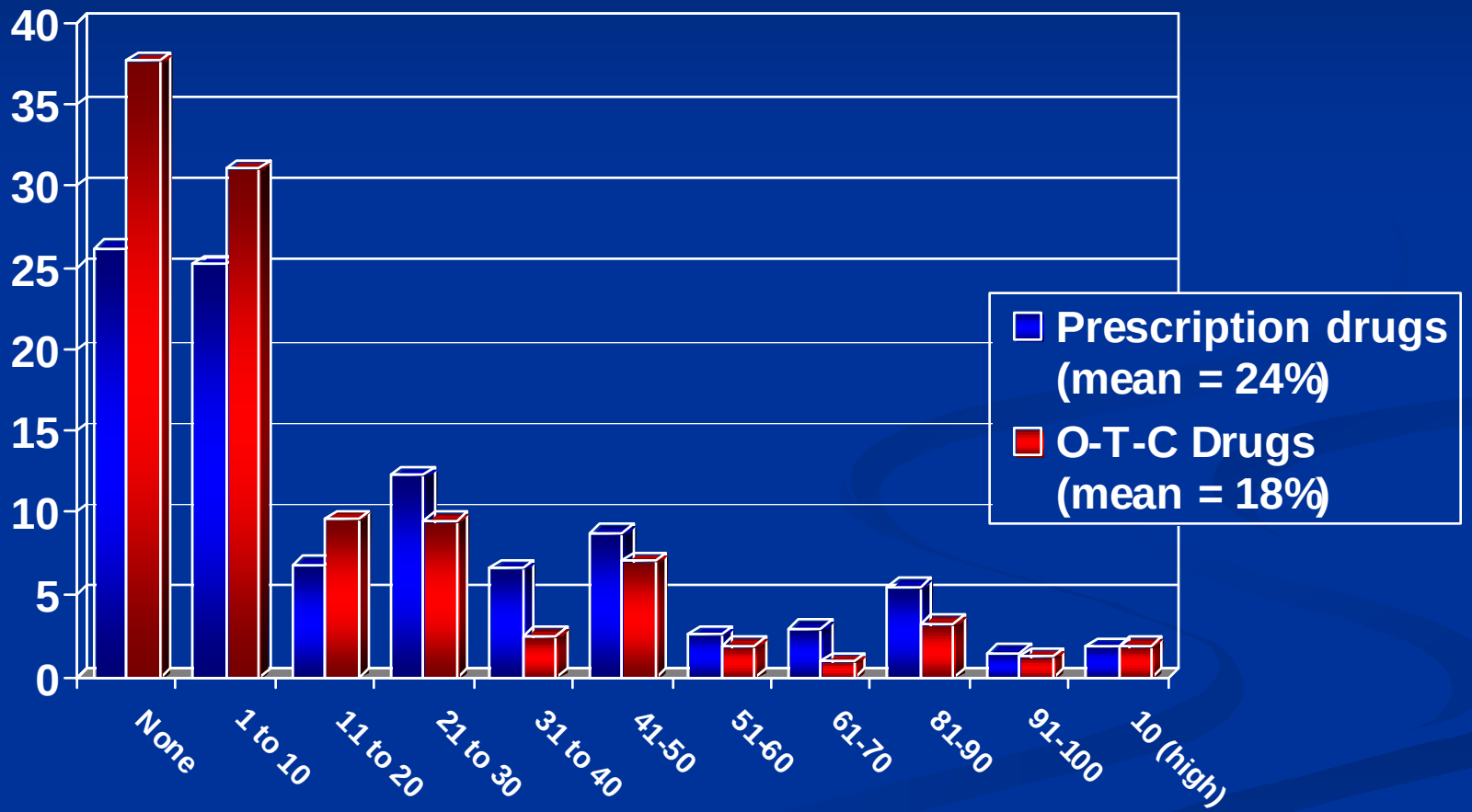
# What percentage of co-workers take drugs to lower or treat stress?



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# Types of Drugs Used by Co-Workers for Stress

| Prescription | % yes | O-T-C | % yes |
|---|---|---|---|
| **Antidepressants** | **60.8** | **Vitamins/dietary supplements** | **45.4** |
| Anti-anxiety | 42.7 | Sleeping aids | 40.0 |
| None take drugs | 18.3 | Herbal antidepressants | 30.1 |
| Other | 6.0 | Herbal anti-anxiety | 17.0 |
| | | Other | 4.8 |
| | | Herbal ecstasy | 2.4 |



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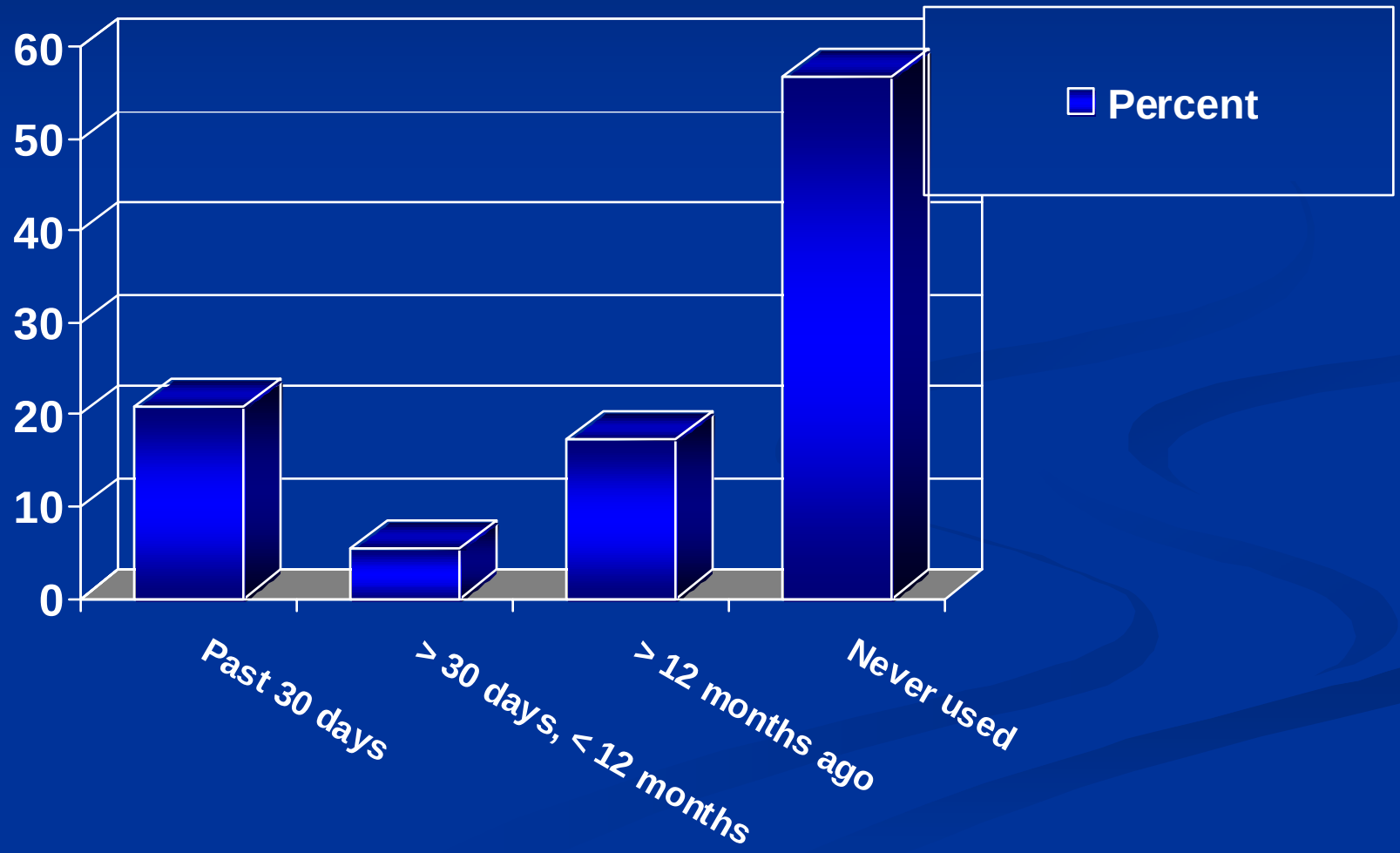
# Ever used a prescription drug for depression, anxiety, or other stress-related problems?



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# What is associated with the level of perceived prescription drug use by co-workers?



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# Outcome: *Current Use* of a Prescription Drug for a Stress-Related Problem

| Model/Category | Variables |
|---|---|
| 1. Demographic | Gender (< .001), age (< .06) race, education, income, partnered, years in industry |
| 2. Mental Health | Score on CESD (< .001) |
| 3. Classic Work-related variables | Job Demands (< .001), Job Control, Emotional Labor, Role Insufficiency, Work Values, Work Climate |
| 4. Monitoring | Electronic, Eavesdropping, Behavioral (< .01) |



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# Outcome: *Current Use* of a Prescription Drug for a Stress-Related Problem

| With CESD | | Without CESD | |
|---|---|---|---|
| **Gender (.001)** | **(Exp)B=2.77(CI =1.54 to 4.99)** | **Gender (.001)** | **(Exp)B=2.57(CI =1.51 to 4.36)** |
| **Age (.02)** | **(Exp)B=1.04 (CI=1.005 to 1.07)** | Age | |
| **CESD (<.001)** | **(Exp)B=1.06 (CI=1.04 to 1.08)** | -- | |
| Job demands | | **Job demands (<.001)** | **(Exp)B=1.03(CI =1.02 to 1.05)** |
| Behavioral monitoring | | Behavioral monitoring | |



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# Outcome: *Perceived Percent* of Co-workers Using a Prescription Drug for a Stress-Related Problem

| Model/Category | Variables |
|---|---|
| 1. Demographic | Gender (< .001), age (.01), race, education, income, partnered, years in industry |
| 2. Mental Health | Score on CESD (<.001) |
| 3. Classic Work-related variables | Job Demands (<.001), Job Control, Emotional Labor (.001), Role Insufficiency, Work Values (.09), Work Climate |
| 4. Monitoring | Electronic, Eavesdropping (<.001), Behavioral (<.01) |



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# Outcome: *Perceived Percent* of Co-workers Using a Prescription Drug for a Stress-Related Problem

| With CESD $R^2$=.36 p <.001 | | Without CESD $R^2$=.33 p <.001 | |
|---|---|---|---|
| **Gender** | t=4.76, p < .001 | **Gender** | t=5.07, p < .001 |
| **Age (-)** | t=-2.07, p < .05 | **Age (-)** | t=-2.87, p < .01 |
| **CESD** | t=4.62, p < .001 | --- | |
| **Job Demands** | t=5.65, p <.001 | **Job Demands** | t=5.74, p <.001 |
| Emotional Labor | | Emotional Labor | |
| Work Values | | **Work Values (-)** | t=-2.18, p <.05 |
| **Eavesdropping** | t=3.51, p <.001 | **Eavesdropping** | t=4.08, p <.001 |
| Behavioral Monitoring | | Behavioral Monitoring | |



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# Summary

- Electronic monitoring is more frequent than supervisory monitoring
- Both types of monitoring are seen as somewhat stressful but not at all helpful
- Workers believe that monitoring increases the use of prescription and O-T-C use and to some extent vitamin and herbal supplements
- On average, workers thought 24% of all colleagues were using prescription medication to lower or treat stress



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# Summary

- Most widely used of all medications was antidepressants
- 20% of employees reported they were currently using prescription drugs for stress, anxiety and depression
- Behavioral monitoring was indirectly related to current use as it was mediated by job demands
- Eavesdropping was associated with perceived level of co-worker use



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# Conclusion

Based on these data, it appears that monitoring at work had a negative effect on worker mental health



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