

Propensity Score

kkamali@razi.tums.ac.ir : -
:
:
:
:
/ / : / / :

()

Propensity

Genetic Association Study

Propensity

Propensity

STATA.8

DNA

Propensity

Propensity

Propensity

Propensity

:

(Rajeev Dehejia 2002)

Propensity

(Abadie 2004)

$$[e(X)=p(W=1|X)]$$

=)

()

(=

(Cochran 1968)

-

"

Rajeev Dehejia)

()

Double Robustness

(2002; Kenneth Rothman 2008

()

Johnson)

()

(2006

Bias

Propensity

(Imbens 2004)

Bias

(Abadie 2002; Imbens 2004)

(Association Study)

Rosenbaum 1983;)

Trait

(2005

(Cardon and Bell 2001)

(=)

Caliper

/...

Propensity Score

(Lewis 2002)

()

APOE - GSKβ- SAITOHIN - TAU

$$=) ()$$

$$=) (=)$$

$$) ((= = =$$

$$) ($$

STATA.8

(
Logit

Salting Out

DNA

Propensity Score

Propensity Score

Propensity

Genetic Association Study

/ /

Michael and)

(K.J.S 2006

(Late Onset Alzheimer Disease)

DSM IV

DNA

EDTA

* * * =

Hosmer-Lemeshow

Propensity (p= /)

Shapiro-Wilk ()

Propensity

p= /)

Propensity

(p= /

Joffe and)

Shah and) (Rosenbaum 1999
(Laupacis 2005

DNA

Propensity

Propensity

Propensity

()

()

Propensity

Cepeda and)

(Boston 2003

Propensity

/...

Propensity Score

Hosmer-Lemeshow Chi2

Propensity

(Weitzen and Lapane 2004)

Propensity

Propensity

(Oakes and Church 2007)

Propensity

Propensity

Mansson and Joffe 2007; Sturmer and)

(Schneeweiss 2007

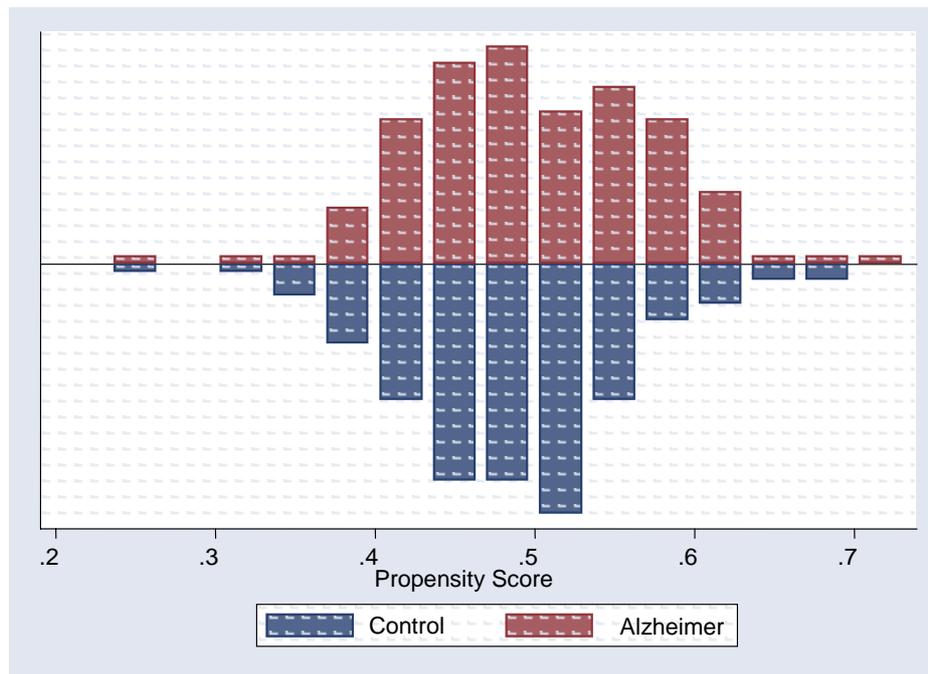
Propensity

Bias

/ (/)	/ (/)	()
/	/	(%)
/	/	(%)
/	/	
/	/	
/	/	
/	/	(%)
/	/	
/	/	
/	/	(%)
/	/	
/	/	
/	/	

Propensity

/	/	/	/
/	/	/	/
/	/	/	/



Propensity

- Dehejia Rajeev, H.S.W., 2002. Propensity score-matching for nonexperimental causal studies. *The Review of Economic and Statistics*, **84**, pp. 151-161.
- Imbens, G., 2004. Nonparametric estimation of average treatment effects under exogeneity. Technical working paper-national bureau of economic research incorporated. ISSU 294, pages all .
- Joffe, M.M. and Rosenbaum, PR., 1999. Invited commentary: propensity scores. *Am J Epidemiol* , **150**(4), pp. 327-33.
- Johnson, K.A., 2006. Matching estimators for observational studies with binary treatment. Los Angeles, University of California. Master of science in statistics: 51.
- Lewis, C.M., 2002. Genetic association studies: design, analysis and interpretation. *Brief Bioinform* , **3**(2), pp. 146-53.
- Mansson, R., Joffe, MM., 2007. On the estimation and use of propensity scores in
- Abadie, A.G.I., 2002. Simple and bias-corrected matching estimators for average treatment effect. *NBER Technical Working*, pp. 283.
- Abadie. A.G.I., 2004. Large sample properties of matching estimators for average treatment effect. *Econometrica*. **74**(1), pp. 235 – 267.
- Cardon, L.R. and Bell, J.I., 2001. Association study designs for complex diseases. *Nat Rev Genet*, **2**(2), pp. 91-9.
- Cepeda, M.S. and Boston, R., 2003. Comparison of logistic regression versus propensity score when the number of events is low and there are multiple confounders. *Am J Epidemiol*, **158**(3), pp. 280-7.
- Cochran, W., 1968. The effectiveness of adjustment by subclassification in removing bias in observational studies. *Biometrics* , **2**, pp. 295–313.

-
- Rothman Kenneth, J.S.G., Timothy, L., Lash
2008. *Modern Epidemiology*. New York,
Lipincott Williams & Wilkins.
- Shah, BR., Laupacis, A., 2005. Propensity
score methods gave similar results to
traditional regression modeling in
observational studies: a systematic review. *J
Clin Epidemiol*, **58**(6): 550-9.
- Sturmer, T. and Schneeweiss, S., 2007.
Propensity Score Calibration and its
Alternatives. *Am J Epidemiol*, **165**(10):
1122-1123.
- Weitzen, S. and Lapane, KL., 2004. Principles
for modeling propensity scores in medical
research: a systematic literature review.
Pharmacoepidemiol Drug Saf, **13**(12): 841-
53.
- case-control and case-cohort studies. *Am J
Epidemiol*, **166**(3): 332-9.
- Michael, O.J. and K.J.S., 2006. *Methods in
social epidemiology*, Jossey-Bass a Wiley
Imprint, pp. 370-393.
- Oakes, J.M. and Church, TR., 2007. Invited
commentary: advancing propensity score
methods in epidemiology. *Am J Epidemiol*,
165(10), pp. 1119-21; discussion 1122-3.
- Rosenbaum Paul R. and D.B.R., 1983. The
central role of the propensity score in
observational studies for causal effects.
Biometrika, **70**(1): 41-55.
- Rosenbaum, Paul R., 2005. *Observational
Study*. pp. 1451-1462 in *Encyclopedia of
Statistics in Behavioral Science*, edited by
Brian S. Everitt and David C. Howell.
Hoboken, N.J.: Wiley.