

(IIHFW RI +HDY\ 0HWDOO&SDOQSW/EFLOOXV

9LMD\DGHS 563 VV36\

5HVHDFK 6FKRODU 'HSDUWPHQW RI 0LFURELRORJ\ 0DKDUDQL /DNVKPL \$PPDQQL &ROOHJH IRU :RPHQ 6
+2' 'HSDUWPHQW RI %RWDQ\ 0LFURELRORJ\ 9LMD\D &ROOHJH %DQJDORUH ,QGLD
&RUUHVSRRGLQJLMDWKRHS & 5HVHDFK 6FKRODU 'HSDUWPHQW RI 0LFURELRORJ\ 0DKDUDQL /DNVKPL
%DQJDORUH %DQJDORUH 8QLYHUVLW\YLDGDDGHHS #JPDLEDEP

5HF GDWH 0D\ \$FF GDWH -XO 3XE GDWH -XO

&RS\ULJKW 9LMD\DGHS & HW DO 7KLV LV DQ RSHQ DFFHVV DUWLFOH GLVWULEXWHG XQGHU WKH W
XQUHVWULFWHG XVH GLVWULEXWLRQ DQG UHSURGXFWLRQ LQ DQ\ PHGLXP SURYLGHG WKH RULJLQDO D

\$EVWUDFW

2YHWKSDVW FHQWXU\ XQUHVWULFWHG PLQLQJ H[WHQVLYH LQGXVWULDOL]DWLR
ZDVWH GLVSRVDO PHWKRGV KDYH UHVXOWHG LQ WKH UHOHDVH RI XQSUFHGHHQWH
6Q 3E &X &R 0Q =Q HWF LQWR WKH HQYLURQPHQW 0DQ\ PHWDOV DUH HV
FRQFHQWUDWLRQ \HW DUH WR[LQ LQ KLJKHU FRQFHQWUDWLRQV %LRVUSWLRQ L
WKH ELQGLQJ RU DGVRUSWLRQ RI KHDY\ PHWDOV WR OLYLQJ RU GHDG FHOOV 0
DFFXPXODWH PHWDOV

7KH SUHVHQW VWXG\ LV LQWHQGHG WR DQDO\H FRQD XSWDNH LQVHVMQHW FRQ%DR
KHDY\ PHWDOV OLNH =Q &X &G DQG +J LQ WKHLU VDOW IRUP LQFRUSRUDWHG L
UHJXODU LQWHUYDO RI WLPH \$QDO\LV ZDV EDVHG RQ KRZ PXFK RI WKH PHWDO I
LQ WKH PHGLD DIWHU WKH UHVW EHLQJ XS WDNHQ E\ WKH RUJDQLVP 7KLV ZDV
UHSUHVHQWDWLRQ RI SHUFHQW XSWDNH RI KHDY\ PHWDO E\ WKH UHVSHFWLYH RUJ

7KH VWXG\ VKRZHG WKDW *UDPFRKREUWGGVPRUOLNHVLVWDQFH WR PHWDOV OLN
UHODWLYH FRPSDULVRQ ZLWK *UDP%DFLQXVQLSVZDLNHVDFHOOXVWLYH WR HIIHF
FROL

FHQWULIXJHG DW USP IRU PLQXWHV WR VHSUDUDWH RXW WKH FHOO
PDVV DQG WKH EURWK PHGLXP 7KH FHOO PDVV ZDV GLVFDUGHG DQG WKH
VXSHUQDWDQW ZDV XVHG IRU WKH KHDY\ PHWDO DQDO\VLV 7KH DQDO\VLV ZDV
EDVHG RQ KRZ PFK RI WKH PHWDO IURP WKH RULJLQDO FRQFHQWUDWLRQ XVHG
ZDV OHIW EHKLQG LQ WKH PHGLD DIWHU WKH UHVW EHLQJ DEVRUEHG DGVRUEHG
WKH RUJDQLVP 7KLV ZDV GRQH XVLQJ \$WRPLF \$EVUSWLRQ 6SHFWURVFRS\
\$\$6 ZKLFK ZDV LQGLUHFWO\ WKH UHSUHVHQWDWLRQ RI SHUFHQW XSWDNH RI
KHDY\ PHWDO E\ WKH UHVSHFWLYH RUJDQLVP 7KH UHVXOWV RI SHUFHQW XSWDNH
RI KHDY\ PHWDO ZDV FDOFXODWHG DQG WDEXODWHG

5HVXOWV

,Q FDVH RI LQLWLDO VFUHHQLQJ SURFHGXUHV ZLWK SSP FRQFHQWUDWLRQ
RI VHOHFWHG%KHDY\OPHWDOJRRG JURZWK ZLWK SSP
DQG SSP RI =Q DQG SSP RI &X :LWK LQFUHDVH LQ WKH FRQFHQWUDWLRQ
WKH JURZWK RO XV

